THE

AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of Man.—*Washington.*

VOL. III. NEW YORK, NOVEMBER, 1844. NO. XI.

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ARABIAN AND PERSIAN HORSES.

WE wish to inquire of any of our readers, whether the imported Bussorah, a small, but very beautiful sorrel horse brought to this country from the head of the Persian Gulf, in 1819, being then 5 years old, is still living? if so, *where* does he *now* stand? If not living, *where* and *when* did he die? and in what places has he stood since he left the vicinity of New York several years ago? Also, where are some of the best bred of his get now to be found? for instance, the horses Selah, Sir Harry, Ranger, and Hanover; and more especially the mares Lady Mary, and Josephine, or either of them? Also, where are the two Arabian horses imported a few years since by Commodore Elliott, especially the *grey* one? Where have they been standing since their importation into the United States? and how have their stock proved as racers, roadsters in harness, and under the saddle? We make these inquiries, having understood that very few if any of Bussorah's colts proved successful racers, though we know that some of them made very superior animals on the road, and sold at high prices, being much better liked than those usually got by the English and American thoroughbreds. We would like also to be informed what has become of the two Arabian horses which arrived a short time since at Salem, Mass., sent by the Sultan of Muscat to the President of the United States, and when and where they are to be sold.

BLIGHT IN PEAR-TREES.

A FRIEND has just mentioned to us a remedy for this formidable disease in pear-trees, which he has found effectual. On discovering the blight which had become very general on his trees, he immediately cut off the branches it most effected, then scraped the bark from the trunk and limbs thoroughly, to the live bark, and applied a strong ley from wood ashes. Although the bark bled profusely in many places, and was turned to a dark brown on applying the ley, the trees immediately put out deep, green leaves, and have since been entirely recovered. The common ship-scraper was made use of in scraping the trees.

The result of the above treatment would seem to indicate, as has been latterly asserted, that blight is owing to a minute insect concealed within the bark. We should be highly gratified by the reception of any communications on this subject, proving more fully, if possible, whether we are correct in our supposition.

SKETCHES OF THE WEST—No. VI.

Plantation of Mr. Adam Beatty.—Stopping two miles or so short of Washington, we diverged to Prospect Hill, the plantation of Judge Beatty, who has so much distinguished himself in Kentucky as a writer on agriculture and as a practical farmer. Though at an elevation of nearly 300 feet above the Ohio river, the land, in common with other large tracts at this elevation, is extremely fertile, frequently as much so as that lower down on the plains. We found the plantation in admirable order. It embraces about 400 acres, covering two hills, with a pretty valley between, through which meanders a clear rivulet, sparkling over a white limestone bottom. Plenty of excellent fencing stone abounded in the valley, and Judge Beatty had commenced the use of it for his enclosures. Wherever stone can be had in Kentucky, we found that it was rapidly taking the place of wood for fences, it is found so much more durable; and it is assuredly to be preferred on account of its greater strength and beauty, for nothing can be more unsightly than the crooked snaky fences so common the United States over.

Crops.—The main crop on this plantation is hemp, and for the better production of it, and also to maintain the fertility of the soil, Judge B. has an established system of rotation, the particulars of which, as it has lately undergone some modification, we hope to publish hereafter from his own pen. Large quantities of corn are raised here, together with some wheat and the other small grains. With the exception of potatoes, roots are not much thought of, so destructive is the fly and numerous other insects in the first stages of their growth.

Stock.—As Judge Beatty did not wish to embark in the business of breeding fine animals for sale, he has availed himself of the best grades within his reach, which answer all purposes of general utility. Large, stout horses and mules are mostly used for the farm work; the cows for milk, and the cattle for fattening, are principally a high cross of the Durham; the swine a greater or less intermixture of Irish Grazier or Berkshire; and the sheep of pure or mixed Merino blood. We noticed a fine large stock of all these different animals, particularly the last, which upon the whole we believe were considered the most profitable stock kept upon the farm. Judge B. esteems sheep highly in another respect; and that is, for feeding off his grass and clover, and leaving the land in a better and richer condition than other stock can do for the succeeding crops. We regret to say, that this part of sheep husbandry is little thought of, not only in Kentucky, but even at the north, where our lands east of the mountains, owing to their general thinness of soil, require more skill and attention in keeping up and increasing their fertility, than those at the west.

We found many things in practice at Prospect Hill worthy of notice; but inasmuch as the best of these were embodied in a general way, in two articles upon Kentucky Farming in the first volume of this work, it is unnecessary to repeat them. Suffice it to say, that in cultivating his plantation, Judge B. adopts all such improvements as a long course of scientific agricultural reading, and the observation of the best practice in the United States have proved advisable for his particular section of the country. In the neatness of his farming operations, order, general good management, and average products from year to year per acre, we know of no place of anything like its size, which is superior to the plantation at Prospect Hill—and there are things here which must be seen rather than described, to be properly appreciated.

Hemp Factory.—On leaving Prospect Hill, Judge B. had the kindness to give us a drive in his carriage to Maysville, distant about seven miles. Here we found a large hemp factory, erected at a cost of $80,000, and capable of making a million yards of cotton-bagging per annum, beside large quantities of bale rope.

We now left Kentucky on an excursion to Ohio and as far south as New Orleans, and subsequently revisited a small part of it the following June. We were not only gratified by what we saw of this noble state, but received much valuable instruction on agriculture and the rearing of stock during our short journeying there. It is our intention to see more of this superior section of the country, together with other parts of the west and south, at the earliest opportunity which may offer to accomplish so desirable an object.

OBSERVATIONS TO PLANTERS.

The following admirable hints we find addressed to the planters of South Carolina, by a correspondent of the Southern Agriculturist. We wish that they might reach and be heeded by all; for it is certain that the stock of cotton on hand in Europe is fearfully accumulating, and that so long as this process is going on it must continue to fall. There is no escaping this dilemma, and the sooner our southern brethren look this matter in the face and provide for it by a change of system, the better it will be for them. We hope they will take these observations kindly, for they are kindly meant.

"There is a partial if not complete remedy for this evil, which I take the liberty of suggesting through your pages. Let every cotton planter make it a rule and adhere strictly to it, to make no more cotton than he can make clear of his plantation expenses. That is, let him pay all his plantation expenses by other crops, and make only so much cotton as will support his family, pay his debts, and add to his property. Many planters I dare say will answer, that they would be glad to make enough cotton to pay their debts and support their families. This may be true as to some, but in general it would be more pert than true. Even these who are hardest run, purchase corn, salt, negro cloths, &c., with *cotton* money. I doubt if there is any planter who could not produce enough for market, beside cotton, to pay for all these things, and all plantation expenses. Some are so situated, that they could sell corn alone sufficient for the purpose. Let them increase their corn crop then to that amount and diminish cotton. Others again if the corn could not be sold, might feed it to

stock and sell that. It will bear transportation, and there is a great deal of foreign beef and bacon sold in the cotton region. Wheat and flour in the middle and upper country, could be made to pay these contingencies. Rice will grow at the foot of the mountains and command a good price, and so will tobacco. Many could pay these expenses by cutting timber and making shingles, staves, &c. In short, there are few planters in the whole cotton region, who might not by a little diversion of labor, manage to make what cotton they do, clear of the expense of production, and do so profitably. Let each planter look around him, and see what his resources are. I do not invite him to make his own shoes, hats, blankets, clothes, salt, and iron. In most cases, others who are in these lines can make these things and bring them to his door cheaper than he can make them himself. But he can follow the business he understands, or at least is best prepared to carry on, and make something else besides cotton to pay for them.

"I know the folly of recommending any measure to planters, requiring their combined action. I recommend this to each planter for his own *individual advantage*, as well as for the sake of the whole. While it will diminish the aggregate crop, if it curtails but a bale, it will teach each man to be independent, to a certain extent, of cotton speculators, open his eyes to his own resources, and gradually prepare the way for that change of culture which is inevitable, and at hand, for all those who can not make a heavy bale to the acre. And I would add, that every planter should as speedily as possible reduce his culture to such land only as will make a heavy bale per acre. If he has no such, let him *make* it—manure will soon do it. Cut down the cotton, increase the corn and pea crop, pen hogs, cattle, and everything else on straw, muck, weeds, &c., &c., and he will soon have as much land that will raise him a bale to the acre as he wants, if he makes no more cotton than he makes *clear*.

"I preach no more than I practice. I am a middle-aged planter, and I have nearly always made my cotton crop clear. I have suffered my share in the hard times, and have met, I think, more than my average of losses; yet I have kept above board without any stringent economy, mainly because I have paid plantation expenses by selling corn, peas, oats, &c. My expenses have been as heavy as any planter's of the same force, and my land probably as poor; yet I have kept up chiefly I think, because I did not have to pay them in a lump at the end of the year out of my cotton, which would have left me so small a surplus, that probably I should not have thought it worth taking care of. The balance would have been mere odds and ends, which few know how to make tell. I have made corn, &c., supply my odds and ends of cash, and appropriated them as they came to hand to pay current expenses; and when my cotton came in, I could do something with my little *lump* of *clear money*. Let me say also, that after next year I shall not plant an acre but will (or at least *ought* to) yield me 400 lbs. clean cotton. Not *one*—and not many I trust next year. Yet my land in its best natural condition, will not average half that much. What I adopt for my own good, and experience has proved to me is for the good of every planter, both individually and collectively, I recommend others to *try*."

AMERICAN PLOWS IN ENGLAND.

We wonder that our cotemporaries should so worry themselves about the reported failure of the working of American plows in England. Have not the English plows always equally failed in their working in the United States, with an American plowman at the end of the handles? The truth is, that the plows of the two nations are of so entire different a construction, that an Englishman with his prejudices, and without any previous practice, is totally unfit to handle an American plow; and so is an American, an English plow. Had a thoroughbred Yankee been at the handles of the American implement, at the late trial before the Royal Agricultural Society, at Southampton, the result would unquestionably have been in its favor; for we know from repeated personal observation, made in both countries, that the American plow will do more work with less draught than any English plow whatever; and that it is upon the whole better fitted to our purposes of plowing round stumps and rocks, or on uneven ground, and among stone and gravel, than anything from abroad. But in level, smooth land, we think it has some defects; the principal of which are a want of proper lever purchase in the handle, and a miserably contrived clevis.

When plow-handles are placed in so upright a position as is usual with us, the plowman has not a proper control over his implement, and it makes it hard work for him to handle it in the furrow; besides, it is continually bobbing up and down; running alternately deep and shallow; and in and out, instead of moving easily, steadily, and smoothly along. This defect has been pretty well remedied by Ruggles, Nourse, and Mason, and some others; they having adopted nearly the happy medium between, we think, the extreme length of the Scotch plow-handles, and the short ones of America, and added a wheel upon the beam to gauge the depth of plowing, and make the draught easier. The second defect, the clevis, we suppose has been thus long submitted to because more simple and cheaper made—we ought to say infinitely *dearer* in the end. To our mind, the Scotch clevis is the most perfect of any we have yet seen. It looks bungling, and seems to abound in *useless machinery;* but let any one use it on his plow a single season, and pay any attention to its working, and he will after that never have any other, we will be bound to say. As to the make of plows, they must be of different sizes and forms to suit different purposes; and this idea of offering a single premium for the *best* plow, is perfectly ridiculous; it is like trying a race-horse, a roadster, and a cart-horse, together; or pitting a Merino, a Leicester, or a South Down sheep against one another. Each are valuable for particular purposes, and we know from considerable practice, and much personal observation, that different soils—for instance, from heavy clay through the

several gradations to shifting sand, and the different state again of these soils—whether in green sward or naked fallow, or to turn in a stubble and green crop, at least six kinds of plows are requisite to perform their work properly. With these observations now before them, our readers will infer that we are not only heartily tired of hearing which is the *best* plow, but of witnessing and recording the results of plowing matches as at present conducted. They prove just *nothing at all* of the slightest benefit to the community, and are time and money thrown away. When shall we have a reform?

CHEMICAL SOLUTIONS FOR SEEDS.

We have repeatedly noticed of late in our foreign journals, accounts of extraordinary yields of crops from seeds which had been subjected to soaking in some chemical solutions. Although not disposed to question the accuracy of the results stated, we must still affirm our want of confidence in the excessive merit claimed by them. These preparations are useful in two ways. First, by saturating the seed with substances distastful to its enemies, insects, grubs, and worms; and secondly, by affording to it an element of nutrition for the future plant, it is enabled to push forward vigorously in the first stages of its growth, and send out its roots and leaves rapidly so as to derive an increased amount of nourishment from the soil and atmosphere, beyond other plants which lack this early development of its organs of nutrition; by which means they are not only enabled to reach farther for their food in the soil, and open an additional number of mouths by its leaves and stems to drink in nourishment from the air, but as a consequence of this early, rapid development, plants are frequently enabled to attain a growth which secures them against the injurious and sometimes fatal effects of droughts and insect enemies, and in many cases, to mature their fruits before the approach of frosts. These advantages, and other food yielded directly to the plant, are frequently of great importance to the crop, and may in some instances be worth ten or twenty times the cost of time and expense in the preparation, and are at all times worthy the attention of the farmer. But to claim that they yield all the elements of nutrition to the crop is a perfect absurdity. They afford the same advantage to the plant that early attention to the young of animals does, by helping it so far forward in strength and maturity that it is enabled afterward to gather up its own food, *if it is to be found within its reach.* If soil be deficient for the support of the larger plant, it must as certainly dwindle or die, as will the lamb or calf, if after it is enabled to eat grass, it is not to be had within its reach. We are justified therefore in concluding, that a good soil is, *in every case*, requisite for yielding a large crop, however the seeds may be prepared. We shall be obliged to our correspondents for the results in this treatment of seeds, under any variety of circumstances, of solution, kinds of seeds, description of soil, and results, each minutely and accurately stated.

DISEASE IN POTATOES.

We observe that this subject is being discussed at great length in our own, and European journals. We have given the substance of the most plausible part of these discussions, in the past and present No., under the head of Foreign Agricultural News and Editor's Table. We can scarcely find any two writers agreeing what this disease is; and although in our various rambles in the country, we have paid considerable attention to it, wherever it manifested itself, we are just as much at a loss to know what constitutes it in every case as our cotemporaries; in the absence of more accurate knowledge, therefore, we conclude to say as little as possible about it. We recommend to our farmers and gardeners, one and all, next year, to become accurate and close observers of their potato crops from week to week till the vines flower; and from that time on until harvesting, to *daily* observe them—now and then uncovering the tubers, then splitting the vines open from the tubers up to the tops, examining the whole attentively; when if anything unnatural occurs, and you can not account for it, show the same to some botanist or scientific man who has a good microscope at command. By steadily pursuing this method, you will be able in time to detect the disease, whether it is owing to one cause or many; a remedy then will easily be found. Hundreds of thousands of dollars—yes, we might add millions, will be lost in the United States the present year from the disease in potatoes, it is, therefore, of great importance to the agricultural interest that some remedy be found to stay it.

ODD ROWS OF CORN.

It may be recollected by our readers, that we asserted in our last volume, in giving an account of the "Cereal display" at the American Institute, that we saw one ear of corn there with "*twenty-one rows.*" Whereupon our facetious friends from Alabama to Washington city, and thence back to the interior of Ohio, (to say nothing of various private parties over the whole Union,) each commanding and leading on a redoubtable cohort of witnesses and *disproofs*, commenced a series of public attacks upon our *crib*, literally overwhelming and devouring us, corn, cob, and all; and then to make the matter worse, shouted forth an *io triumphe* to our supposed *peccavi*, of whether we "*ever saw* any man that *ever saw* a *dead* donkey?" No; certainly not, we replied in all meekness; but then, what was better for our argument, we knew we had seen a pig with *seven* legs, *three* tails, and *one* head; all of which *anomalies* the exhibitor of said animal declared, came in consequence of eating corn growing on cobs with "*narra* kurnel nor row alike," so we held our peace till we could see what we should see to substantiate our position. Well, on a late visit to the Hon. John G. Floyd, of Long Island, walking into his corn crib, we picked up three ears of corn, and began incontinently to count the rows, and sure enough, on the last one, we found running about two thirds of the way down the cob from the end, ELEVEN rows,

and the other third of the ear contained THIRTEEN rows! We also found at several other places, different ears of corn where the rows passed each other on the cob, making *odd* rows for a longer or shorter space upon them. The above ears are now in our possession ready to be shown to the discomfiture of all the *facetii* of the land! But to be serious, we have seen through life too many freaks of nature not to believe that she could make odd rows of corn, and we are firmly convinced that we were not mistaken in reporting "twenty-one" rows as forming the ear we noticed at the American Institute last year, although we did not get possession of it to show the unbelieving. We shall be obliged to any of our friends who will furnish us with ears of corn containing odd rows, to further substantiate our position that such things do occasionally exist.

NURSERY AND GARDEN OF MESSRS. WINTER & CO.

In the beautiful town of Flushing, on Long Island, about an eighth of a mile from the steamboat landing, on the north side of the main street, in the heart of the village, is the nursery and garden of Messrs. Winter & Co. It occupies twenty-one acres, and is one of the oldest establishments in the state, being a part of the celebrated Linnæan nursery and garden, founded, and for a long time successfully conducted, by the late Mr. Prince. These grounds are well worthy of a visit. They are highly cultivated, and handsomely laid out with spacious avenues running the whole length, bordered by a great variety of flowering shrubs and plants, and ornamental trees, several of which, like the Italian stone-pine, are very rare, and have attained their full stature, forming not only highly delightful, but instructive promenades, to the scientific, as well as the unlearned in horticulture and arboriculture. Convenient seats for visiters to rest themselves, are placed along the walks, in the shady groves of the umbrella magnolia, and beneath the spreading branches of majestic trees. At that period of the year, pre-eminently denominated the season of flowers, the display is very attractive, the roses alone covering an acre of ground, the numberless peonies bursting out with their rich variety of colors, and other flowers dotting the grounds with their brilliant dyes, in great profusion. These are continually followed by others during the whole summer, and in the fall comes a magnificent display of dahlias, of which there is a large collection conveniently planted for inspection. Many of these specimens are truly beautiful. The green-houses also are quite extensive, and are well filled with a good collection, agreeably ornamenting the grounds around during the mild season, with much that is curious and rare.

But Messrs. Winter & Co. have not confined themselves exclusively to the ornamental; for the visiter will find here quite an extensive nursery, embracing the usual variety of apples, pears, plums, peaches, and quinces. They struck us as being in an excellent, healthy, thrifty state, and are well arranged for growth, and convenience in taking up. Great care also is exercised to keep the varieties apart, in such a way as to avoid mistakes in executing orders. When we last visited this establishment, about two months since, we were particularly attracted by the sight of a young tree, clustering more thickly than we ever saw one before with its large splendid fruit of a pale yellow, with a brilliant red cheek on the side approached to the sun, well meriting the designation given to it of the Queen of pears, and making a striking ornament to the garden. Not far from this was a dwarf apple-tree, two feet only in height, on which hung several fair apples of a good size, showing itself among the trees, the very Tom Thumb of fruit-bearers.

There are many other things at this beautiful place which we should like to mention, had we not previously written at such length on the subject of nurseries and gardens; and as Flushing is only a sail of an hour and a half from this city amidst the most delightful scenery on the East river, we trust our readers will avail themselves of a trip thither to admire for themselves. We know of few more delightful excursions, and there are several other establishments in Flushing aside from that of Messrs. Winter & Co., all of which are well worthy a careful inspection.

THE OREGON.

The western papers give us late and interesting information respecting this distant territory, and we have no doubt that we shall soon have a delegate in Congress from it. They have already (at least on paper) a large commercial city, four miles above the mouth of the Wallamette, where town lots are selling at $50 each, being (as they say) a *great sacrifice*, as they are valued at full $200! Pork is worth 10 cents; beef 6 cents; potatoes 40 cents; flour $4 per hundred; butter 25 cents; cattle from $50 to $150 each; and horses the same. A herd of one hundred young cows driven over the mountains would bring $4,000 cash!—a rare chance for drovers. We would advise our friends on the upper Missouri to look to Oregon for a market, rather than to New Orleans; the distances of the two places being about equal from our frontier settlements this side of the Rocky mountains. If cost of transportation of produce were the same, it would be quite another affair. Wild fruit and fowl and fish are very abundant; a good goose sells for 8 rifle charges of powder, and a large salmon for 4—cheap enough. Mill privileges without number; wood and timber plenty, some of the trees growing three hundred feet high! Grass on the prairies all the year round—a grand country this for sheep; land good, and producing well of wheat, corn, &c., &c.; climate mild, light—snows only in winter, which melt as fast as they fall. Laborers wages $1 50 to $3 50 per day—a blessed country for the poor man. Such is the flattering account we have from the emigrants of the Oregon. Who will not take the risk of being scalped by Indians, or devoured by grisly bears, to say nothing of sustaining innumerable hardships for a succession of

years, and living free from all moral and civil restraints, to emigrate to the Ultima Thule or last jumping off place of the El Dorado of the final borders of the great illimitable west!

SEVENTEENTH ANNUAL SHOW OF THE AMERICAN INSTITUTE.

THE show and fair for this year was held as usual at Niblo's in Broadway. It opened on the 7th of October, and continued till the 26th. Rather an increased number of visiters attended it, and the exhibition in domestic fabrics, glass-ware, and cutlery, as well as most every kind of manufactures, cabinet furniture, &c., &c., showed a decided improvement. Indeed, such was the variety of articles present, and so substantially were they made, and so highly finished, that they leave little to desire in many things, and show how well now all our reasonable comforts and luxuries can be supplied at home.

Horticultural Department.—This was changed the present year from the second story of the north wing, to the long gallery on a level with the garden. There being much more room here, it gave a better opportunity for the display. The saloon was beautifully fitted up, and decorated with evergreens, garlands, and wreaths: the flowers, fruits, vegetables, and grain, were handsomely arranged, in great abundance, on each side its whole length of upward of 100 feet. There were so many exhibitors, and these things have been so often repeated in our columns, that we fear we shall trespass upon our readers' patience if we attempt to particularize. We can not refrain, however, from mentioning some magnificent grapes from the conservatory of Mr. Cushing, of Massachusetts; also some superb pound pears from his garden. Mr. Bates, of the same state, exhibited very superior cranberries grown on a *dry* soil. To these we add, from other exhibitors, pine apple potatoes; a gloria-mundi apple, weighing 27¾ ounces; fruit of the Osage orange; eight Valparaiso squashes, weighing 581 lbs., all the product of one seed; Otaheita pumpkins; green globe artichokes, a southern vegetable; and Mr. Harmon's splendid varieties of wheat in the head.

Agricultural Implements.—Among the few new things in this department, we noticed a corn-sheller the price of which is $50; its inventor stating that with a one-horse power for driving, it will shell 300 bushels per hour. An almost incredible quantity; but we presume he meant corn in the ear. There were two straw-cutters with different shaped knives than any we have seen before, also an alteration in the endless chain principle of the horse power. We should not like to say that these were any great improvement till we had effectually tested their operation.

Silk Convention.—This was opened on the 9th at the repository of the American Institute, in the Park, and continued nearly three days. Many interesting questions were discussed, and a mass of facts collected to be embodied in a second report. Within two years there has been a vast increase in the manufacture of silk in this country, an increase amounting it is supposed, to three or four fold. In the growing of silk there has been also a large advance, an advance more difficult to estimate, as the returns are incomplete. We know enough, however, to be assured that the business has *essentially* surmounted the struggles of its infancy, and its miserable nursing, and is now on its feet, and commanding the respect, and confidence of intelligent men throughout the country.

The question of *open feeding*, so fully established by the results published in the last report, is yet more confirmed by those of the present season. The Northampton Association in Massachusetts has made in this way 150 lbs. reeled silk, with the most entire success. John M. Summy, of Manheim, Lancaster county, Pennsylvania, has made the same quantity in the same way. Others, in great numbers, have tested the question, and are perfectly satisfied that worms *must* have the pure air of heaven, and the more the better, except in *very early*, or *very late* feeding, and yet Miss Rapp, and some others, have had abundant success in feeding on the artificial plan.

The silk goods this year at the fair, exceed in quantity and quality anything before exhibited, and the same may be said of that at the Mechanics' fair in Boston, last month; thus showing that this interesting branch of home industry is making steady and sure advances.

Another fact. Almost all who are now engaged in growing silk, are preparing to enlarge their operations; and many new mulberry orchards will be planted the following spring.

The report of all these doings will be speedily put to press, and will doubtless prove a document exceeding in interest that of last year. It will be about the same size. It is expected that funds will be furnished *gratuitously* for *stereotyping* it, so that it may be sold in large quantities at the cost of paper, ink, and presswork. It is intended that *fifty thousand copies* shall be scattered over the land. Orders are solicited. Returns from silk-growers, if forwarded *at once*, to Isaac R. Barbour, Esq., of Oxford, Massachusetts, will not be too late to be inserted.

The silk cause is indebted to Mr. Van Schaick, of this city, for a recent donation of $1,000, to be expended by the American Institute, in promoting this business.

Farmers' Convention.—This was held at the same place as above, on the 11th and 12th. It was well attended, and the subject of agriculture generally discussed. Quite a number of letters from distinguished farmers, who could not attend, were received and read. Resolutions were passed, calling upon the United States government to establish a Home Department at Washington, with an officer to superintend it having a seat in the cabinet like the other secretaries. The convention then adjourned, to meet next year, after a gratifying and interesting session.

Cattle Show.—This again took place at the Vauxhall Garden, opening on the 16th, and continuing through the 17th. The exhibition of horses was quite superior to that of last year; likewise in working-oxen; but of Durhams, especially in bulls, far inferior. Mr. Griswold showed a very superior Ayrshire cow, both for fineness

of point and milking qualities. Her form would do credit to a Durham, especially in the brisket, loin, and quarter: nor was she inferior in handling. Indeed, she is the best animal of this breed we have yet seen in the United States. She was imported from one of the best herds in Scotland, and can be had for two hundred dollars.

At the close of the exhibition, a grand procession was formed of cattle, &c., attached to cars and vehicles of different kinds, fitted up with considerable taste with a display of vegetables, sheafs of grain, corn-stalks, &c., &c. Mr. Ellsworth, of Connecticut, was marshal of the day. A band of music headed the procession, and among other things assisting to form it, were two gentlemen on horseback, with each a fair lady behind him, on a pillion! Rather an odd spectacle this for the city of New York, and it attracted great attention from the crowds in Broadway. One of the pillions used on this occasion, was made fifty years ago, by Mr. Daniel Wadsworth, of Hartford, Connecticut.

Plowing and Spuding Match.—This interesting exhibition, after having been twice postponed on account of the weather, came off on the 19th, at Fordham, in Westchester county, about 12 miles from New York. There was a very respectable number in attendance, although the forbidding appearance of the weather in the early part of the day must have kept a good many at home.

The spading match took place first. In this case there were six candidates for the prizes offered, which were as follows:—For the best spading of ground twenty feet long and ten feet wide, silver cup, value eight dollars; second best, silver medal; third best, diploma.

This exhibited great interest. The work was done in fine style, and the prizes awarded as follows:

First premium to Joseph Lodge; time 23 minutes.

Second premium to William P. Lodge; time 30 minutes.

Third premium to Matthew Roach; time 34 minutes.

After this contest was disposed of, the teams entered for the plowing match were ordered to fall into line. There were eleven competitors, seven of whose teams were oxen and four horses.

The regulations were, for the best plowing, performed in one hour on one eighth of an acre of greensward, a silver cup, value eight dollars; second best, silver medal; third best, diploma.

The list of the names, and the order in which the ground was allotted to them, stood thus:

No. 1. Matthew Ray, West Farms, Westchester county, a pair of horses.
" 2. John Savage, same place, a pair of oxen.
" 3. John Ray, Morrisania, Westchester co. do.
" 4. Moses Rogers, West Farms, do. do.
" 5. Lewis G. Morris, Fordham, do. do.
" 6. Oliver Cromwell, do. do. do.
" 7. (withdrawn.)
" 8. Henry Moore, Ithaca, Tompkins co. horses.
" 9. C. Bathgate, jr., Morrisania, W. co. do.
" 10. Jeremiah Tiers, Yonkers, do. oxen.
" 11. Corns. Bergen, Brooklyn, Kings co. horses.

They all started off in gay style, and accomplished the work in even less time than was expected, the teams dropping out in the following order: No. 4 first, 9 second, 11 third, 6 fourth, 2, 3, and 10, nearly together, fifth; No. 8 sixth, No. 1 seventh, No. 5 last. No. 8, was a side hill plow; No. 9, Burrell's wheel plow; No. 11, Mr. Bergen's own plow; No. 4, did the work in 19 minutes; No. 9, in 19 minutes, 5 seconds; the longest time was 30 minutes.

The Committee awarded the premiums as follows:

First premium of silver cup to John Ray, Morrisania, Westchester county.

Second do. silver medal to Moses Rogers, of West Farms, Westchester county.

Third do. diploma to Matthew Ray, West Farms, do.

After the matches were over the Hon. Henry Meigs made the speech on the occasion; Mr. Ellsworth, of Connecticut, also addressed the assembly. The Committees adjourned to Berrian's tavern, at Fordham, and dined, and then declared the premiums.

Altogether the seventeenth exhibition of the American Institute was highly attractive, and more varied than usual. We shall give the list of premiums next month.

QUEENS COUNTY SHOW.

THIS came off at the pleasant village of Jamaica, on the 10th of October. The weather was very fine, and so far as the crowds of highly respectable people of both sexes were concerned, it was a capital show. But the animals present were few and a very *unfair* representation of what Queens county is able to turn out; but so long as our farmers are contented to make their appearance at such places, and boast of what they have "*got at home*," and lament then that they did not bring them forward, we must ever expect to see a poor exhibition. Of the stock present, the best display by far was in horses; and the next best in Durham cattle. There were also some good grades and natives on the ground. Of sheep and swine very few were present, and only one pair of mules.

The seeds and grain, at the court-house, were highly to be commended, especially the corn, which was the most superb and varied display we have yet seen at any show whatever. The vegetable department, we think, was quite equal to that of seeds. Fruit we noticed in great abundance and variety. A quince was exhibited weighing 26 ounces, and 13 apples weighing 15½ lbs. The quince beats all they have recently been boasting about in Massachusetts, the largest there weighing only 23 ounces. The butter exhibited struck us as being quite superior; of cheese we scarcely saw any. The domestic fabrics gave evidence of the taste and industry of the ladies in Queens county, and it afforded us great pleasure to notice so many of them present, taking such interest as they seemed to in the whole exhibition. We can not but think this one of the pleasantest features of such shows, and we trust that the ladies

will continue their good offices in their behalf. The floral department was well filled, considering the season. We were particularly struck with a magnificent cornucopia, exhibited by Mr. Samuel Youngs, of Oyster Bay. The exterior of it was an envelope of splendid dahlias, beautiful roses, and quite a variety of other choice flowers. The horn was filled with grapes, pears, peaches, and strawberries, and as it rested on the show-stand it seemed indeed a horn of plenty. Mr. Furman, of Brooklyn, made the speech on the occasion, which was well received by a large auditory.

We were highly gratified by being present at this county show, but we think it would be better if the whole of Long Island would unite in one. If the people would do this, and turn out with what they have "got at home," they would make a superb show, and one which would draw a considerable concourse of visiters from the neighboring counties, and especially from this city. We have not room to give even the most important premiums, nor do we think this particularly necessary, since they appeared in several of the county papers.

PREMATURE BIRTHS.

All animals after casting their young prematurely, are liable not to breed soon again. The reason is, that the womb and the parts connected with it are injured by the unnatural parturition, and require time to strengthen. If, therefore, as soon as the females come in heat they are again put to the male, conception is not likely to follow. To remedy this, we have kept them away from the male, however often they might desire him, till the womb had time to strengthen, when they would again become breeders. If the females were mares or cows, we kept them from the male six months, or sometimes a year or more; if a ewe, four to eight months; if a sow, three to six months or more. During this time they were well fed and cared for, and a short time before being put to breed, reduced to a moderate condition. The male now made use of, we selected for being rather young than old, and as vigorous an animal as possible. After conception, the animals were kept quiet, and great care taken not to have them placed under the same circumstances as they were when first overtaken with premature births; as it must be recollected, that like causes would be liable to produce like effects.

KEEPING PUMPKINS.

Pumpkins for stock are best kept in a dry loft with the flooring quite open, so as to allow the air to circulate as freely as possible between them. Were it not that they take up so much room, we should prefer storing them in a single tier; but usually, for want of this, when a large crop is to be secured, they must be piled upon each other. In this case, we would recommend their not being placed more than three or four deep. If piled together in too large heaps, they gather moisture and rot rapidly. When frozen, they may be preserved a long time; but they should be cooked before giving them to the stock, otherwise they may do them great injury. On the whole, we prefer feeding our pumpkins as fast as possible after ripening, and before the cold weather sets in. They are of a cool, watery nature, and unless cooked, we doubt whether they are near as beneficial to animals in frosty weather as they are when it is milder, or indeed any kind of fruit or root, though stock of a good breed will usually do well upon them.

FATTING ANIMALS.

As cold weather is rapidly coming on, now is the time for the farmer to push forward the fatting of his animals as rapidly as possible. His beef and mutton ought to be in the market by the end of the month; and the pork as soon as the weather is cold enough to cool the hogs off well, and the cutting and salting can be prosecuted without endangering the tainting of the meat. Our farmers little know how much they lose by not fatting their animals early in the fall. First, they fat 25 to 50, and some assert even 100 per cent. faster in mild weather than they do in severe cold, on the same amount of food. What a great saving this would be. Second, by feeding out roots and grain as fast as ripe and gathered, it saves the trouble and risk of storing. Third, the animals are more comfortable, and it is less labor to prepare their food for them, and feed and keep them clean, during November than later. Lastly, the meat which first comes to market usually brings the highest price; and at any rate, if sold three months in advance of his neighbors, one at least saves that amount of interest on the money he gets for his produce, beside considerable risk in keeping the animals themselves.

PRICES OF FANCY POULTRY.

Having been so frequently asked the prices of fancy birds, we give them below as nearly as possible. It must be premised, however, that they vary greatly according to their being scarce or plenty in market, and also according to the kind, and the *fancy* of breeders. To these prices should be added postage of letters, if not prepaid; caging, cartage, and shipping; all of which matters are pretty sufficiently troublesome.

Pigeons, fan-tails, per pair,	-	$1 25 to	2 50
tumblers, "	- -	1 00 "	2 00
English pouters,	-	4 00 "	7 00
carriers, per pair,	- -	5 00 "	20 00
Ducks of different kinds, per pair,		2 00 "	4 00
Bantam fowls,	"	1 00 "	2 00
Poland do	"	2 50 "	3 50
Dorking do	"	4 00 "	5 00
Small China geese,	"	3 00 "	4 00
Large do do	"	5 00 "	8 00
Bremen do	"	2 00 "	4 00
Wild, do	"	5 00 "	6 00
Guinea or African goose,	"	10 00 "	15 00
Turkeys, pure white,	"	2 50 "	4 00
Rabbits, according to variety,	"	1 00 "	10 00

Dorkings, with the exception of a few cocks, we are sorry to say, can not be had this year. Several persons in this vicinity have made arrangements

to breed a few dozen pairs for sale next season, and we hope a year hence those who are in want of them can be supplied. The small China geese priced above, are very fine and bloodlike, are as hardy as ducks, and said to be as great layers.

THE TENNESSEE AGRICULTURIST.—We have often requested our cotemporaries, when inserting anything in their journals, to which they wished to call our attention, as an act of courtesy, not only to mark it, but to fold up the paper with the said marked article outside, so that it may immediately be seen; otherwise, as we have little time to bestow upon our exchanges, it will be very likely to pass unregarded. We are indebted to a friend for pointing out several articles to us in the T. A., which we now proceed to notice.

Who is Americus? To this question of the Tennessee Agriculturist, we answer, *that* is best known to ourselves. If for any particular reason, we choose to insert anonymous communications, we shall do so; and all questions of what and who the authors are, we shall consider as impertinences which had better be addressed to some other quarter. But if the T. A. "claims to know" who Americus is, we wonder it should give itself the trouble of asking.

Another point. As Americus does not own a single "old Merino" to our knowledge, and does not very soon expect to, we suspect that the T. A. will be obliged to wait sometime before it sees an "advertisement appear" from him, "offering some for sale;" nor can he very well now be engaged "in writing up his own sheep," however much he may be supposed "to undervalue his neighbors." There are some folks in this world who seem to entertain the opinion, that no one can move, speak, or write, unless he has an *interested* motive in so doing.

South-Down vs. Grandee's Wool.—The same paper above, asserts, that it can show samples of South-Down wool of a better quality than those it has from Grandee. We do not know what the editor of the Tennessee Agriculturist may have in his possession, but here is an offer, viz: we will give him *one thousand dollars* for every pure bred South-Down sheep that he will deliver to us in this city within a year, whose whole fleece clean washed, not to say "is better," but within TEN CENTS per pound, as fine as samples of wool of Grandee's fleece which we can produce, or indeed that are as good as the poorest Rambouillet fleece which can be found in the Hartford flock. The South-Down is acknowledged to be one of the hardiest sheep, and handsomest formed, in existence; the mutton, also, is very superior; if to these good qualities they can now show them in Tennessee, of such superior wool, they have a treasure indeed which our breeders here would be very glad to share with them, even at the most extravagant prices.

LECTURES UPON AGRICULTURAL CHEMISTRY AMONG THE FARMERS.—We have recently received a letter from Dr. Raymond, of Buffalo, stating that it is his intention to make a tour through different parts of the state the ensuing winter, for the purpose of delivering a course of chemical lectures to the farmers, and arouse their attention to the study of so much of this important science as can be made practically beneficial to them. The course will consist of from six to ten lectures. Each lecture will be delivered independent of the others. Admittance for each person, one shilling in the villages, and 25 cents in the cities. Before Agricultural Clubs, $5 per night, for which he will give 50 tickets. These terms are extremely low, and as Dr. Raymond is quite conversant with his subject, we really hope that the farmers will encourage him with a full attendance upon his lectures, wherever he may be found among them.

WOOL EXPORTED TO EUROPE.—One hundred bales, containing 20,000 lbs. of fine Saxon Merino wool, grown in the United States, was exported to England in the Patrick Henry, sailed 6th of October. It was stated in the papers that sixty cents per pound was paid for it, but this was a mistake, the purchaser only gave about fifty cents. This price, however, is a remunerating one, and sheep may be made to net $2 per head per annum on the average, which is a good business for the farmer, paying much better than grain and grass, or fatting pork, at present rates. We hope to see our flocks yearly increase.

TO OUR READERS.—We are particularly desirous of having our fourth volume superior to any of its predecessors, and hope, therefore, that all who can give us new matters of fact, experiments of any kind, or communications interesting to the agriculturist on subjects not yet particularly touched upon in this paper, will not hesitate to do so at once. We are likewise desirous to obtain drawings of plants, vegetables, and animals; any new agricultural implements, or improvements in them; houses, barns, sheds, piggeries, and poultry-houses; plans of division farms; fences, gates, and indeed anything appertaining to agriculture; all of which, if not too costly, we will get engraved as illustrations to this periodical. We hope that our friends will not hesitate in these matters. They must recollect that this journal has a wide circulation, and what appears very common and familiar to some, is strange and new to others, and regarded and perused with much interest and instruction.

AGRICULTURAL EXPORTS.—It will be seen from the following table of imports of American beef, pork, lard, and cheese, into Liverpool, the year ending August 31st, that our exports of these articles, from almost nothing three years ago, have become quite important; and what is more to the purpose, we think they are very likely to increase in nearly an equal ratio for three years to come.

	BEEF.		PORK.		LARD.		CHEESE.	
	brls.	*tecs.*	*brls.*	*tecs.*	*brls.*	*kegs.*	*csks.*	*bxs.*
1842,	3,367	——	9,113	66	2,125	39,174	1,841	4,732
1843,	5,457	2,083	8,001	33	12,326	22,857	2,105	3,619
1844,	9,812	10,789	15,933	33	25,585	30,425	6,504	22,395

POSTAGE—FRANKING.

In giving the rates of postage in the Agriculturist Almanac, Mr. Allen states that "members of Congress receive and send letters *free*, during and for sixty days before and after session of Congress." If he will look into the "*amended*" P. O. law, he will see that they have the franking privilege during the whole vacation of Congress. And moreover, that for certain kinds of correspondence they are not limited to the "half ounce" (*a*) but may send and receive free any package, nothing being said about weight. This is an additional reason why we should urge on the P. O. reform. "M. C.'s" have not forgotten to provide for themselves, if they have forgotten [neglected] the tax-payers—the people. H.

(*a*) Post Masters are confined to the "half ounce" franking privilege; members of Congress can at all times frank *two ounces;* and heavier documents, such as piano-fortes, cases of books, huge packages of political pamphlets, *old clothes, and linen sent home to be washed*, they get done by a stretch of the law through the Clerk of the House also free.

Agriculture in Scotland—No. 2.

Draining.—About two weeks since, during my attendance of the annual show of the Highland Agricultural Society, held this year in Glasgow, I had the pleasure of hearing an address upon draining, from Mr. Smith of Deanston, who is in this country considered an oracle upon that subject. So far as my knowledge extends, I was the only American present, but I wished that his observations might have been heard by every farmer of our country. My sketch must be brief and therefore imperfect, yet it may nevertheless present an outline of an address, which coming from such a source, is most worthy of confidence.

Mr. Smith commenced, by stating that the chief evil we have to contend with, arises from the rain that falls upon the surface. The plan of forming high narrow ridges is but a partial remedy: the crop may be good upon the crown of the ridge, but the furrow and lower parts get a double share of water and are always inferior; besides, the rain running over the surface washes out and carries away a part of the manure and of the soluble and most valuable portions of the soil. Water always forms a level, and accumulates at a certain distance below the surface; when a field is drained thoroughly, this level is removed to the bottom of the drains. The rains falling upon the surface descend to the level and flow sideways to the drains. In the stiffest clay soils, this takes place, for such soils shrink in drying, and thus gradually become intersected with cracks, so that they are often found to drain quicker than any others. As the water passes down, of course the air follows, and fills up the vacuum; in this manner a supply of fresh air is introduced into the soil and obtains access to the roots of the plants. Noxious substances also, such as oxide of iron, which always accumulate below the level of the water, and form a barrier to the downward progress of the roots, are gradually dissolved and carried down the drains, thus purifying a great depth of soil, and placing within reach of the growing crop an unexhausted stratum of earth. Extensive experience during the excessive dry weather of the last season, has shown that drained fields withstand the drought far better than the undrained. Facts previously cited show how this is to be accounted for. On the drained land, the roots may descend in search of water the whole depth of the drains, and encounter no noxious substance; while on undrained, they soon find something which checks their growth.

The top of the drain should be below the limit of the subsoil plow. With tiles 2½ feet for the bottom may answer, but 3 feet is better. They should be laid off in parallel lines straight down the hill. There is *no necessity* for *oblique lines* to cut off the springs: the water always finds its level, and each parallel drain discharges itself at great advantage. They should be between 16 and 21 feet apart; closer than 16 feet they might let off the water too freely, without filtering sufficient; it ought to pass into the drains perfectly clear. In particular cases, of course, undulations of surface make catch-drains necessary. The great point in cutting, is to make the drains as narrow as possible, a turn of the plow may take out 8 or 9 inches at first and a narrow spade do the rest. Stone drains if *properly executed* are as effective as tiles. They should be made of stones broken to the size of a hen's egg and need no open space at the bottom. Great care is to be taken in covering; the best material is a thin turf, carefully cut and overlapped; the earth should be *tramped* upon it and filled to the surface as *compactly* as possible. From 6 to 8 inches and even less, of broken stone are perfectly effectual, and drains of this description have been found in excellent order 20 years after they were made. Much stress is laid upon beating and compacting the soil above the stones; no water should find its way into the drain except from the side. If tiles are used they should have soles; economy should not come in competition with security.

When the soil is well drained, the next step is to stir it as deeply and thoroughly as possible; for this purpose the subsoil plow is the best implement. Care should be taken, however, in case of tenacious clay soils to wait for a year or two, as hasty subsoiling of them would produce very bad effects. In some stony land it might be necessary to use the spade or fork. As the subsoil becomes ameliorated by the action of water and access of air, it may, by trench plowing, be with great benefit gradually brought up. Mr. Smith has attained on his own farm a workable depth of 16 inches of good mould.

I have now given the principal points of this lecture, which, delivered at the close of a public breakfast of the Highland society, was listened to with marked attention by a large audience. Each position was strengthened by *facts*, drawn either from the extensive experience of the speaker or that of others. At the close, the chairman, the Duke of Montrose corroborated the assertion of Mr. Smith that drained land bore drought better than undrained.

The great body of American farmers, though recognising perhaps in general terms the importance of this subject, have very little idea of its real extent, only thinking of drains in connexion with bogs and swamps; they would be surprised to hear that a very large proportion of their *cultivated fields* would be at once doubled in value by the introduction of drains. It is considered in this country that the increased value of two years' crops, or at the most three, repays the whole outlay. Some high authorities contend that *all land* would be benefited by drains. I am hardly prepared to say this; but am most desirous that our farmers should not fall behind those of this country in their attention to so important a subject.

JOHN P. NORTON.

Edinburg, August 21, 1844.

PLANT-LICE DESTROYED BY LADYBIRDS.

To no man is the study of natural history of more practical benefit than to the agriculturist, that he may learn what are his real enemies, and how to distinguish friends from foes. I once saw a gentleman of wealth and intelligence, in the south, busily engaged in picking off from his cotton and destroying the ladybirds (*coccinellæ*). On my inquiring the reason, he informed me that the cotton was infested with hosts of plant-lice (*aphides*), and that they were produced from these beetles. He was confirmed in this opinion by the two being always associated together. Wherever the lice were, there was the ladybird. He was quite astonished when I informed him that the aphides constitute the regular and sole food of the ladybird, which seeks them out and devours them continually, and that he had been promoting the breed of a pernicious insect, by blindly destroying another race which God had appointed to keep them down. CANADIAN NATURALIST.

WOOL-GROWING.

THERE is every evidence that we shall have for years to come, a large and profitable demand for wool. The establishment of a reasonable protective tariff for the raw material, as well as the manufactured article, will, if persevered in, of which we can not allow ourselves to entertain a doubt, afford remunerating prices to the wool-growers of our country, till we have reached a production fully equivalent to the demand. What data may be assumed, as furnishing a correct estimate of the proper maximum of supply, would probably puzzle the shrewdest writers on political economy. We have, as elements properly entering into this estimate,

1. The quantity now raised in the United States beyond the coarse Smyrna and South American wools, costing 7 cents and under per lb., at the place whence last imported, on which the duty now levied is 3 cents per lb., and 5 per cent. duty. On all wool costing over 7 cents per lb., the duty is 3 cents per lb., and 30 per cent. ad valorem.

2. The gradual substitution of a better grade of wool, (as the supply augments and becomes cheaper,) for carpets, blankets, and many of the coarser fabrics, which are now made from the coarse wool above-mentioned; as it is an established fact, that an equal weight of a fine staple, is much more durable than the same quantity of an inferior grade.

3. The supply of the finer sorts of Saxon wool, now imported for the best qualities of broadcloth, cassimeres, &c. I am not aware of the quantity of this description of wool annually imported under our present tariff, but judge it to be considerable, from the fact that I was assured last year, by a manufacturer, that he had just ordered 50,000 lbs.; and a dealer told me that he had imported from London (the great wool market not only for England, but for the continent of Europe also) a much larger amount, for consumption in the eastern states, during the last season.

4. The rapid increase of our own woollen manufacturers, (our tariff remaining as it is,) and the manufacturing within ourselves, of nearly all the finer descriptions now imported, of broadcloths, cassimeres, fancy goods, shawls, bocking, carpets, and rugs of the choicest qualities, (Brussels, Royal Wiltons, &c.,) blankets, worsted stuffs, bombazets, bombazines, mousselines de laine, &c., &c.; the raw material for which, is in all cases, furnished of a foreign growth.

5. The increasing demand from the increase of our population.

6. A demand augmented beyond the ratio of increasing population, consequent upon the prosperity of the country and the diffusion of wealth, which must inevitably accrue to our country, if we have the wisdom to maintain our present pacific relations abroad, and our protective policy at home.

7. The application of woollen fabrics to new and unforeseen purposes, as our manufacturers advance; such as their use by paper-makers, carriage-makers, &c.; and their substitution for leather, cotton, silk, furs, &c.

8. The eventual exportation of wool, and the manufactured article to foreign countries.

That the exportation of wool from the United States is not a remote or improbable event, the policy of our own and foreign nations continuing as they now are, will satisfactorily appear to intelligent minds, on a slight investigation. We have, as peculiar advantages for the production of wool in this country,

1. Millions of acres of unoccupied land, every way precisely adapted to this object, a large portion of which, is not suited to any other profitable production. Thus we have, in addition to the measureless acres of prairie and other fertile, tillable land in the west and south, the great chain of the Allegany and its collateral mountains, reaching through twelve degrees of latitude and as many of longitude, throughout nearly their whole length and breadth, but especially as they recede from the north; all of which vast piles, and the innumerable valleys that everywhere skirt their sides, and which are now entirely unused, or occupied only to a very limited extent, are destined ere long, to the support of countless flocks.

2. The adaptation of our soil and climate to the growth of a fine staple of wool; and the foregoing, together with a dry and rolling surface of land, and innumerable supplies of fresh water, which

almost everywhere abound, secure to sheep a healthful growth, and vigorous constitution.

3. The economy of labor in producing wool. The average time of an intelligent, able-bodied man throughout the year, will, on a good farm, well arranged for the purpose, and with suitable fixtures, provide the winter food, and give all the attention required, to a flock of 500 at the north, 600 in the middle, and probably, even more than this in the southern states.

We have examples the present season, of a choice Saxon flock producing 2⅞ lbs. of wool each, at an average price of 68 cents, or nearly $2 per head; and of another Merino flock producing over 5 lbs. per head at 48 cents, or $2.50 each. This would yield, for the productive labor of a single individual, inclusive of capital for the flock, land, and fixtures, (and many flock-masters consider the lambs a full equivalent for all these,) from $1,000 to $1,500 per annum. What other agricultural occupation will produce one half as much? The above statement is predicated on the choicest sheep; but as these are as easily supported as the worst, it is not presuming too much on the intelligence of Americans, to suppose they will not long hesitate to follow where it is manifest their interest leads.

4. The cheapness of transportation. A pound of good wool in an European market is worth from 30 to 100 cents, and some, when thoroughly cleansed, even much more than this. Flour and grain is worth from 2 to 4 cents per lb., and beef, pork, cheese, lard, &c., from 5 to 10 cents; and although from its increased bulk the former may be charged at double the ship-freight of the latter, yet this would be hardly appreciable in its market value; while, with the other agricultural products, it sometimes reaches beyond 50 per cent. of their worth, even in the place of consumption.

5. England is the great wool market for the world, and although it is computed she has 50,000,000 of sheep, they but partially supply her own manufacturers. And England manufactures a vast amount of the finest kinds of wool, scarcely a pound of which she raises within her own island territory. Her supply for all this comes from abroad, and after the quantity sent by her Australian and other provinces, she will as readily take of the United States as any foreign nation. It is probable that a large portion of her sheep lands are unsuited to the production of fine wool, and it is certain her management and policy are decidedly against it. Food for her millions of human beings, as well as food for her woollen machinery, is her object; hence her policy, and the almost universal practice of keeping the mutton sheep, the long and middle wools, neither of which can ever make anything but the coarser fabrics. The duty now levied on wool in England is but one cent per lb. on its value of 24 cents or under, and two cents per lb. on wool costing over 24 cents per lb.

6. The restrictive policy adopted almost throughout Europe, with regard to our agricultural products, while they amount to an entire prohibition of nearly every article of human consumption, (wholesome, nutritious, and abundant food, being generally deemed by their rulers articles of superfluity to the ruled,) yet what is essential to them as articles of traffic or manufacture, out of which money can be made, as cotton, wool, &c., they readily admit on favorable terms. A large part of Europe is now so fully stocked with people, as to be incapable of multiplying sheep in the ratio of the demand for their fleeces. And if the peace policy is to be continued there, as we see no improbability of its being, its increase of inhabitants must soon drive out sheep where they now exist. The ratio of supply will be, therefore, inversely as the demand. Where, then, can that deficiency be as well made up as in America? and what more rational than for the shepherds of hundreds there, to transfer their flocks to this country, and become the shepherds of thousands here?

With all our peculiar advantages then, of cheap land, every way adapted in climate, soil, and position, to the healthful maturity of the animal, and the perfection of the staple of the wool; the large returns for the labor bestowed; the trifling cost of transportation; the incapacity of the largest manufacturing kingdom in the world, (now and always most nearly and most extensively connected with us in commerce,) for raising any of the fine wools, which enter largely into her consumption; and finally, the restrictive policy of foreign nations, which exclude our bread-stuffs and eatables, but admit, wherever they can use them advantageously, the raw material for their manufactures, there is every probability, ere long, of a large demand for wool abroad.

One word to our sheep-owners, as to the kind of wool to be grown. The finer you can get the wool, with a large fleece, and good constitution in the animal bearing it, the more profit. In the neighborhood of good markets for mutton, there is an exception in favor of the mutton sheep, to the extent of the demand for the carcase. And it is probable there can be thus raised, all the long wools required for our worsted stuffs; if not, it will be profitable extending the long wools into the interior, to the full supply of that demand. But remote from markets, the best Merinos, and most hardy Saxons, are beyond all doubt the most profitable. It will pay liberally to the flock-master, to select the very best the United States affords, and we could wish, and hope, they may see their own interest in immediately selecting some of the best specimens from the royal flocks in France and Spain, to refresh and re-invigorate the flocks, impaired by injudicious mixtures in our own country.

It may be proper enough to add, that *soil* has much to do with the softness and perfection of the fleece. A clay or loamy soil improves the fibre of the wool, making it finer and more soft and pliable; a sandy or silicious, and a calcareous or limestone soil, renders it stiff and harsh. The first improves, the last deteriorates, not only the fleece of the individual, but also the progeny. Thus, time may produce an essential change in the character of the race, without reference to any other consideration, than the quality of the soil on which they are reared and sustained.

Climate, and the rutting time, we ought to look to also, on every philosophical principle, as having

an influence on the fibre of wool. No exception occurs to us of animals in equatorial regions, possessing a large, close, and fine covering; and none in the arctic, of such as have thin, hairy coats. Nature seems to have made no exceptions to this most rational and merciful arrangement. Should we not therefore look, with every probability, to our fine-woolled sheep sustaining the character of their fleece at the north, and to a deterioration of the same class at the south, in future generations? We know that the reverse of this is claimed by some observing and intelligent breeders of much experience, but we apprehend without sufficient data. We can easily conceive of sheep removed southward, improving the softness of their fleece from the increased perspiration and yolk thrown into it, from the higher temperature to which they are subjected. But this is a forced and unnatural effect, which nature, by her slow yet certain operations, we think, will effectually exert herself in removing from successive generations. By taking advantage of the period of conception, and having this take place when the parents are under the influence of the severest cold of the climate, which should be continued with the dam during gestation, if possible, may we not expect that the fœtus will have impressed upon it, which it will maintain through its maturity, a constitution and covering best suited to the condition of its incipient existence? Reason, we think, must teach us to look for such a result; and by this means, the prejudicial effects of climate may be arrested, or partially postponed; though in the end, the forementioned result seems inevitable. What but the scorching sun of Africa has given its present constitution to the negro; and the mildness of the temperate zones the character and constitution of the Circassian and European races? It is readily admitted, that the mountainous region of the south is not liable to this objection, as their increasing altitude diminishes the temperature, and is a full equivalent to a removal north. Nor do I see any reasonable objection to the rearing of the fine-woolled sheep on the low lands of the south, as any anticipated deterioration of staple, may be, in a great degree, obviated by the use of bucks reared in the north.

When the great advantage is considered, of the ease and economy of renovating soils and sustaining them in a high degree of fertility, by the keeping of sheep, I need not urge the system upon the intelligent agriculturist. Indeed, where lands have been cropped interminably, with wheat, rye, and corn, at the north, and wheat, corn, tobacco, and cotton, at the south, I know of no other self-sustaining system of renovation, that can be adopted. Lime and plaster, where economically obtained, may do it partially, but other manures will be necessary to carry out the work of regeneration. Where shall they be procured at a cost that will enable their owners to sustain a successful competition with the occupants of newer and more fertile lands, somewhat more remote? We can conceive of nothing more suited to the object than sheep. They clean the land of almost every noxious weed, drop most of their manure on the highest lands, where most needed, and require little attention, for all of which they pay double; first, in the produce of a lamb, and second, in their fleece. They are also certain to build up, in an intelligent, industrious community, a manufacturing policy, which gives a profitable and pleasant employment to a supernumerary population; affords an enlarged market for miscellaneous agricultural productions, and, in addition to all their collateral advantages, furnishes to the country, their fabrics at a cost, lessened by all the expenses of a double transportation. Surely, it is needless to urge the adoption of a system, fraught with so many advantages, upon the intelligent planters of the south and west, a people who have, in less than half a century, extended the annual production of cotton, from 2,000,000 to 600,000,000 lbs. The energy displayed in augmenting a single crop, three hundred-fold, in so brief a time, is adequate to the successful adoption of any policy, commended to them by so many intrinsic advantages.

R. L. ALLEN.

Buffalo, Sept. 20, 1844.

MANURE OF PIGEONS.

WHILE the ships of England and America are coursing the oceans in pursuit of guano, I would call the attention of our agriculturists, to a manure of similar origin, and possessing the same properties, that abounds in many places in their own forests; which may be had for the labor of collecting. I allude to the droppings of the wild pigeon. It is well known that these birds live together in flocks of myriads according to Audubon, that their sojourn at a place is not limited by the season but by the supply of food. This great naturalist remarks that he has seen the earth covered by their evacuations, like snow to the depth of several inches. The use of this manure is of very ancient origin. During the great famine that prevailed in Samaria, in the time of Elisha, (2 Kings vi. 25,) the fourth of a cab of dove's dung sold for five pieces of silver. It is highly prized in Persia at this day. Many pigeon-houses are constructed for the sole purpose of collecting the droppings of the birds. It is there used for manuring melons; the finest in the world are raised in that country. In Belgium it is applied as a top-dressing to flax. They pay for it at the rate of five cents for the evacuation of each bird for the year.

The great value of the discharges of birds as a manure, arises from their urine being deposited with their fæces. In animals the salts of urine are separated by the kidneys in solution in water, the secretion passes down and collects in the bladder. In birds, on the contrary, the salts of urine are separated by the kidneys in a solid form with water barely sufficient to convey them through the tube to the common outlet. Birds have no urinary bladder. The white portion of their evacuation comes from the kidney and is essentially the same salts that may be obtained from human urine by evaporation. The colored part comes from the intestines, and is disposed to undergo fermentation. During this change some of the salts are decomposed, and a portion is washed into the soil. The remainder which will not admit of these changes, is the most valuable to the agriculturist.

I have have examined a portion of the evacuations of the domestic pigeon. It contains uria (which may be considered as carbonate of ammonia,) muriate of ammonia, phosphate of lime, phosphate of ammonia, and magnesia, uric acid, and a large proportion of vegetable and animal matter in the most favorable state to become the food of plants. In collecting this manure, a portion of the soil should be taken up with it, as it contains a part of the soluble salts. I consider this substance of about one tenth the value of guano. That one ton of it to the acre would be a good dressing for wheat or any other crop that requires much nitrogen or phosphoric acid.

CHARLES H. RAYMOND, M. D.
Lecturer on Agricultural Chemistry.
Buffalo, Sept. 16, 1844.

GUANO MANURE.

GUANO, whether from Peru or Africa, may be separated into two marked and important kinds of ingredients: the volatile, or easily evaporable, and the fixed or permanent ingredients.

The volatile ingredients are those which evaporate readily at the common temperature of the atmosphere, which contain the ammonia of the guano, and are the nitrogenous or azotised ingredients. They consist chiefly of carbonate, oxalate, phosphate, and *humate* of ammonia; they are contained in all barn-yard and stable manure, and are of the utmost importance to vegetation, for there is not a portion of the vegetable without nitrogen in some shape or other; they powerfully excite vegetable action, and are consequently indispensable to produce a luxuriance of growth. It is to this azotised ingredient that is chiefly to be attributed the surprising *growth* of plants watered with solution of guano, for nearly all these ammoniacal ingredients are soluble in water. Before I quit this subject let me say a few words on the humate of ammonia.

Of all the nitrogenous compounds, this retains the ammonia with the greatest tenacity—humus is found in all soils which contain organic matter. What a wise provision of nature, that an ingredient in almost every soil should be able so tenaciously to retain the substance indispensable to vegetation, ammonia, which is poured down in every shower of rain, exists in every flake of snow. The plants have the power to extract it from its combination with humus then just as they want it, and the rich manure of snow water is no longer a fable; for the ammonia is retained in the snow by the coldness of the temperature, until the genial warmth of spring sets it free to promote the growth and vigor of the young year. One of the most valuable ingredients, therefore, of guano is the ammonia, or rather the ammoniacal salts, and by the quantity of these its price in Europe is very much regulated. The best Peruvian guano contains thirty to thirty-eight per cent. of these salts, some from Chili is quite inferior and only contains eight to twelve per cent.; the best Ichaboe from twenty to twenty-seven per cent., the cargo of the Samos, just arrived from Ichaboe contains 26¼ per cent., and is a very superior parcel. It has been stated by Dr. Davy that he was unsuccessful in finding uric acid in the African guano; I have found it, and I see by recent analyses from England, that it has been found in many parcels to the amount of 1½ per cent. This is by no means an extraordinary circumstance; this substance and its immediate combinations are rapidly and easily transformed, naturally when moistened, or during the process of analysis, into carbonate of ammonia, &c. The character of Dr. Davy as a chemist forbids any other supposition, than that in the samples he analyzed, this transformation had taken place previous to their being placed in his hands.

The latest discovery respecting this portion of guano, is by a German chemist, Unger, who has found in it that exceedingly rare substance, the *Xanthic oxide* of Marcet, hitherto only found in very small quantity in urinary calculi. This, although of no agricultural importance, is extremely interesting to chemists and physiologists.

The next to be considered are the fixed or permanent ingredients. These may again be divided into two kinds, those soluble, and those insoluble, or nearly so, in water.

Those soluble in water are chiefly salts of potash, as phosphate, muriate, and sulphate of potash. I trust that agricultural chemistry is so generally understood now, as to make it unnecessary for me to discuss here the value of potash to the farmer; he knows that this or soda exists in every manure. In the quantities of these ingredients there does not seem to be much difference in the Peruvian and best African, there is usually from ten to fifteen per cent., more than this I think would hardly be advantageous. By this division of ingredients the farmer may know what he adds to his soil in using a solution of guano in water. Such solutions should never be stronger than one pound of guano to twenty gallons of water, and may be used where convenient three or four times during the *growing*, not the *ripening* season.

We now come to the last division of ingredients, those insoluble in water, or nearly so.

They consist chiefly of the phosphate of lime and of magnesia, and the oxalate of lime. These substances, although insoluble in plain water, are soluble in many of the liquids and compounds they meet with in the soil, and when in contact with the roots of plants. They are of the greatest importance to vegetation, for two of them are contained in the seeds of all cereal grains, and particularly in the embryo plant or plumule of the seed. They are contained in exceedingly small quantity in the usual manures, and hence the fields in England which have been so severely taxed for them by the incessant taking off of wheat crops, could yield them no longer until replenished by bone manure or phosphate of lime. The quantity of these in guano varies much, say from 20 to 40 per cent.: about 30 per cent. is a good quantity. Beside these ingredients, there is generally moisture or water varying from 10 to 30 per cent. On this subject it seems only necessary for me to say, that the less water the better, not only because it is the least valuable ingredient, but because water rapidly decomposes the ammoniacal compounds.

The intelligent farmer, from knowing the quantity and quality of the ingredients of his manure, will be better able to shape his course in the application of them, a subject on which of course much experience is still desirable with guano. I have written strongly to Mr. Colman to send us over all the information he can collect on the subject, and I have not the least doubt of its being placed before our farmers in his work, in sufficient time to direct their spring operations.

From what has been said, then, it appears that if a growth of stem, leaf, and root, be required, the solution of guano is about as useful as the whole substance; but where a seed crop is wanted, the insoluble ingredients above are requisite, and the whole guano is necessary. Several experiments have been made here on grass-lands, after the first mowing; they have not been very successful, and the reason is obvious. The guano has been spread over the grass, and in cases where it has not rained immediately, the ammonia has evaporated in the air; and even in cases where rain has followed, much of the ammonia must have evaporated before the solution could get through the thick matted stems to the roots. The potash and other fixed salts may, however, probably be of use in the ensuing spring, but hardly sufficient to warrant any expensive outlay. Permit me here to observe to the farmer, that an unsuccessful experiment, well conducted, is often as instructive as a successful one, and therefore may equally lead to profit. The seed corn which I grew with guano last year has been tried against the best that could be purchased of the same kind, and under precisely the same circumstances, side by side; the guanoed corn was strikingly more luxuriant, and yielded the largest crop.

The whole result of my experiments this year, has, if possible, strengthened my estimation of the valuable power of guano, and my view of its application generally, is, that 250 to 300 pounds is sufficient for one acre broad cast; that it should be put into barrels and be kept as close as possible; that when applied, no time should be lost in covering it with the soil, so that when the ammonia escapes it may at once impregnate the soil above it, which will then gradually give it off to the plant.

Pumpkins of enormous size grown with guano, have been exhibited this year, at the Massachusetts Horticultural Society, and many of those who have tried it on various vegetables, are full of wonder at its power. I think it not so likely to answer so well in stiff clay as on light soils; but one of the great objects of the farmer ought to be to lighten his stiff soil with sand, and then it may be used. On grape vines and all gross feeders its effects are surprising. On fruit trees, one conspicuous action is, that it shortens the joints between the leaves, making the growth short, stumpy, and therefore productive. As it excites vegetation at any time of the year when the atmosphere is of a temperature to permit growth, it must not be applied except during the growing season; but for forcing fruits or flowers, out of season, it will be very serviceable. I have heard from several here, that its effects on potatoes have been remarkable; but I can say nothing on this subject from my own experience. I think the African guano generally, is not so retentive of the ammonia as the Peruvian, nor does it usually contain quite as much; but the difference of price amply makes good this difference if skilfully and carefully used.

J. E. Teschemacher.

Boston, 1st October, 1844.

GAMA AND BERMUDA GRASS.

With great trouble, and at some expense, I procured five acres of Gama grass, which I found neither horses nor cattle would eat, and I consider it as utterly worthless. The Bermuda grass is the best for pasture in the world. It is the doub grass of Central India, and among other things was brought to Georgia by Governor Ellis. You will find it figured and described in vol. v. of Sir William Jones' works, London, octavo edition. It was carried to the Bahamas, from Savannah, by Col. Tatnall, and I suppose found its way to Cuba with the cattle traders of that island. The Hindoos worship this grass as the best food for the sacred bull, and as being sent down from India by Brama for his use.

I speak very positively of the Bermuda grass, being the doub grass of India, and I do so because Mr. William H. Crawford, when secretary of the treasury, procured from India this grass, and tne acorns of the teack tree, and sent me. I was struck (although a dry specimen) with the identity, and having Sir William Jones' work, in which this grass was figured, and my yard and lawn filled with it in flower, I compared them, and found they perfectly accorded in all points. But it requires a microscope to discover the beauties, which he (Sir William Jones) so rapturously describes, in its flowers. I do not know whether I stated that the Marquis of Hastings introduced this grass into England, but it failed, as Loudon states, from choosing an improper situation for it. It would grow well in your lands, that are warm, moist, and not flooded; water lying on it beyond a day destroys it; the roots penetrate too deep to be destroyed in a good and warm soil. Its grazing powers exceed credibility in proper situations; nor is there any grass equal in quality for horses, cattle, or sheep. Thos. Spalding.

Sapelo Island, Geo., Sept. 24, 1844.

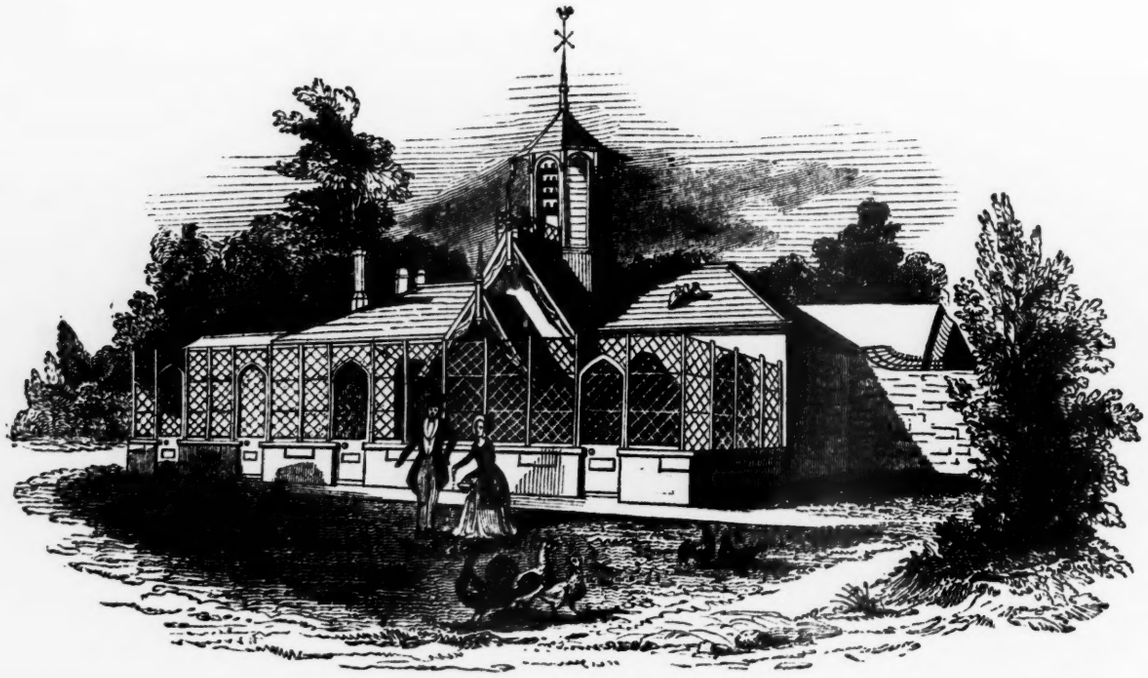
In addition to the above from Mr. Spalding, we have had a communication for some time on hand from Mr. Affleck, of Mississippi, who also forwarded us specimens of the Bermuda grass. We also recollect seeing it growing on his lawn and in other parts of the south. He says:

I find by actual experiment, weighing the Bermuda grass newly cut, and the same when dry, that it loses exactly 50 per cent., or 100 lbs. of grass make 50 lbs. of perfectly dry hay. It is the hardest grass to cut, however, that I have ever seen tried, and the easiest cured. I house all at night, which has been cut at noon. It would not, in my opinion, bear the cold of your winters—the first frost kills it to the ground. The Muskete, or as Kendall calls it, *Mesquit* grass, I presume would suit your

climate better. It is yet a mooted question whether the Bermuda ripens its seed in this latitude. I will examine it carefully this season, and if I find matured seed, will send you some. I know not where Mesquit grass can be obtained. I send you three samples of Bermuda—one of long grass, of upright growth from the meadow, just coming in blossom—the other from an upland pasture—and the third, a stalk that I pulled off the surface of the ground, to show you how it spread, and how admirably it is adapted for embankments. On a piece of good meadow land, this grass stands in a solid mat—so close are the stalks, and so thickly interwoven are the leaves, that when cut with the scythe it very frequently stands erect. I feel very confident that it is *the most highly nutritious grass known to us.* From the specimens I send you, you will readily understand how such enormous crops of hay are cut from meadows of this grass—observe the great solidity and weight of the stem. In curing, it loses less weight than any grass I ever saw—and affords three cuttings, yielding an aggregate of from five to eight tons of hay, from a moderately good meadow.

I have said enough, however, to convince any planter who wishes to form pastures for his almost starved stock, or to do away with the necessity of pulling fodder, work so destructive to the health of his negroes, that he ought at least to make the experiment. And as a proof that I am willing to aid in spreading this treasure over the naked hills of the south, I will willingly forward to any planter, *who is a subscriber to two agricultural journals, one of which is published in the state in which he resides,* on his applying to me *post-paid*, a barrel of roots of this grass, which would, in one season, cover a large extent of ground. To the river planter it is absolutely invaluable—there is not a levee on the banks of the Mississippi could resist, for one hour, the pressure and attrition of the fearful flood now rolling along, but for their being bound together by this grass.

A POULTRY HOUSE.—Fig.62.

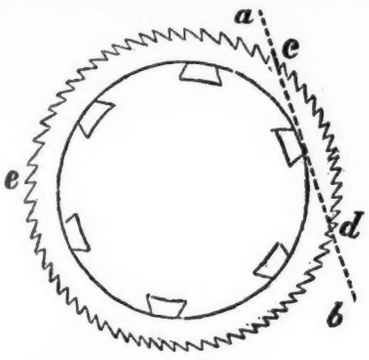


The above cut of a Fowl-House adorns the title page of Mr. Bement's Poulterer's Companion. It is copied from that at Windsor, belonging to Queen Victoria and is thus described by the London Pictorial Times.

It is a semi-gothic building, of simple and appropriate beauty. It consists of a centre pavilion, used for inspecting the fowls, crowned on the top by an elegant dove-cote, and on the sides, of wings capable of symmetric extension, in which are placed the model roosting-houses, and laying and breeding nests of the fowls. The ground, in front, slopes toward the Park, and is enclosed and divided, by light wire fences, into separate wards, for the run, or daily exercise of the birds. Inside these wards, gravel-walks, bordered by grass plots, lead to the entrances of the fowl-house. In the proportions, distributions, and fittings of the apartments of this house, considerable knowledge of the habits, with a corresponding and most commendable regard to the conveniences of their granivorous tenants, has been displayed; the chambers are spacious, airy, and of an equal and rather warm temperature, which accords with their original habits, and their nests are made as far as possible to resemble the dark bramble-covered recesses of their original jungles. In this particular, Queen Victoria has set a good example to the farmers, who too often follow the false routine of their fathers, rather than consult the habits and obey the natural instincts of the animals about them.

THE COTTON GIN.

It has seemed to me easy of solution that our cotton gin could be improved, so as to do, perhaps, more work, and to make better cotton, either of which would be an improvement. I know not that I can give you or your readers sufficient light to understand me, but if you will cast your eye to the diagram, and bear with me, I will attempt it.



Saw-Plate Circle.—Fig. 63.

This diagram I have drawn, to show how the teeth of the saws enter the cotton as well as how they leave it, and should pass out from the grate; *a b* is a grate—the circle is a saw plate, all of which within the inner circle has been cut out except at some few places along where it is fitted on to a cylinder of wood; *d* is a tooth entering the cotton, and *c* is a tooth leaving the grate. The circle in the saw plate is 14 inches. The teeth are laid off with front edge, on a line with a tangent, to a circle of 19 inches. The cotton is placed in the front part of the gin stand, through which the saw runs, and from its force, being turned by a drum on one end of the cylinder, it turns the cotton in an opposite direction, of course, the tooth is more or less forced in; but the main force is not brought to bear until the tooth is about quitting the cotton at the grate *c*, between two of these each saw passes, and then pulls off the lint known in common as cotton. If this tooth should pass through the grates in going out, for it passes at *c*, with the point entering first, of course the cotton would be forced into the notch, and if the heel should enter first, no lint would be pulled off. The fact that many saw teeth are so shaped, and grates so fixed, that the tooth in leaving the box where the cotton is, passes through the grates point foremost, is why we have the nap, or curl, or twist, in cotton to a great extent; another cause is dampness of the cotton, it is forced from the seed and being compressed in the tooth, the brush does not blow it to pieces; another reason, the brush has not velocity sufficient. To remedy these, alter the shape of the teeth, or grates, or the setting on of the latter, dry cotton, or give more velocity to the brush.

To increase the quantity of ginned cotton, we would have to increase the speed; but if we do so, that velocity alone will tend to force the fibre into the heel of the tooth, and in drawing it from the seed to break; or in the quantity drawn off, to cut against the sides of the grates. My notion is then, to increase the size of the saw plate to 12 or 16 inches, or even more; I would, if I were able, experiment up to 24 inches; increase the number of teeth to 8 to 12 to the inch, give the brush velocity, this depending much on the form and number of arms you give the brush. My brush you will see from actual measurement evolves near six times to once of the saw, it having six arms and small; but I should have the brush much longer than the saw plate, and have the bristles long and stiff, placed to the edge of a thin board fastened to arms, say four to six inches wide; the power of making a current of air to blow the cotton entirely loose from any compactness formed by the saw tooth as well as to clear the saws perfectly, is what we want. I should have seed and motes to be dropped, separate of course, but in front, with no air to be admitted to the brush, except at each end of the same; thus the motes could not be blown with cotton, and a more controlling blast of air kept directly to act on the lint.

All gudgeons should work in boxes made to contain oil continually; and whether gearing by cogs or bands is best, should direct me whether to give motion to the brush by a band, or with cogs.

I give you now the measurement of my old-fashioned gin-stand:

The saw plate measures in circumference	28 inch.
driver on the end,	30½ "
drum that gives motion to the brush,	50¼ "
" of the brush,	8¾ "
number of teeth in the saw plate,	124

In giving the above, I remark here, that I made the drum that carries the brush band on the saw cylinder, larger by two inches in diameter, and reduced that on the brush full quarter of an inch, thus gave the brush over one evolution more than when it came from the ginwright. When the brush has not velocity and power enough, the cotton will not be cleared directly from the saw teeth, and will be retained on the bristles. My addition is roughly done, but I save throwing back the ginned cotton in lint room nearly a half, the cotton being blown so much farther.

Allow me to repeat in a kind of summary what I would have in a gin-stand, and assure you such a one I have not seen. I gave my opinion thus a year ago, and before such a one was known to any of us about here. I would have the saw plate some 12 to 16 inches in diameter, the number of teeth to the inch 8 to 12, the teeth straight on the front edge, filed rounding, not square, or inclined, as is done with rip or cross cut saws, and *never sharpened* after. The grates straight, and placed so as to correspond with teeth of the saw, which should strike the line of grates on leaving them perfectly parallel, at no angle. The brush to have velocity enough to cause the greatest current of air, and should be 18 to 24 inches in diameter. The motion of the brush to be given by bands or cogs as it may be known by machinists to be best—air admitted to the brush at each end. I would have one set of false grates only, merely to more effectually cut off access of air from below or front to the brush, but not very close where the teeth of the saw pass through them.

My running gear is cast segments on a 12-foot

wooden wheel, with a cast spur head on the axle of band wheel, with 228 cogs in the main wheel, and 21 in the spur head, the band wheel being 5½ feet. The driver, or drum, or whirl, on the saw cylinder being 30½ inches in circumference, or 10 inches, about, in diameter, will give data to calculate the velocity of saws. My reason for advancing this idea of a gin stand arises from some two or three little trials. I have ginned cotton on McIntyre's patent spinning machine, and sent to Vicksburgh and New Orleans with samples of my gin's performance, and found the former did command from one to two cents more in the market, I therefore concluded if we could have a gin with fine teeth, that we might secure this advantage; but we would lose in quantity—to make this up, I looked to size in the saw plate.

I should remark here, that a long band, with an idler to support the lower part of the band so as to hug the drum more, would make the running of the gin lighter to the horses. What size this idler should be, I know not, but think four to six inches diameter would be large enough. I have heard tell of one being made by a man, who *called* himself a mechanic, of some two to three feet; his object was to give more velocity to saws. What a mechanic! I suppose an idler of four inches would run lighter than one of two or four feet, and therefore than one 8 to 12 inches, and probably enough to notice.

I have been particular and minute that I may aid the beginner.

Gin Bands.—I am not very sure, but what leather bands are the cheapest in the end. My present band has been in use nine years, the weight and cost of each are given to show what is the difference of present value, then the difference between the wear of two years and very probably full fifteen to twenty will show the difference in the end, which is the only mode for a farmer to calculate. My band weighs 15 lbs. which at 37½ cts. per lb. cost. $5 62½
It measures 42 feet long, it will therefore take two thirds of 14 yds. at 14 cts., 1 31
The leather band will last 15 to 20 years, say 15 years, per year, 37
The band will last 3 years at most, 43
When the leather band is 15 years old it is worth nearly half price, for strings, &c., whereas the cotton band is not worth anything. But there is another way to look at it, the use of that much cotton is something in creating more demand, with less demand for leather.

It may not be a wise policy to invite attention to improving gin stands, it might hasten on to a change in the affairs of the world. Should the ingenuity of man once succeed so as to combine on a large scale the ginning, carding, spinning, and weaving into one operation, by which the large planter could turn out his cloth with as much ease as the pin-maker makes and sticks his pins, when compared with twenty-five to fifty years ago, it will cause a greater revolution than did Arkwright, with his power looms. What a change! And yet it may be done in less time than we can anticipate.

M. W. PHILIPS.

Log Hall, Miss., Sept. 6, 1844.

THE POLICY OF AMERICAN FARMERS.—No. 1

IF the farmers of the United States are ever to reap the full benefit of their labor, they must do something beyond raising the largest amount of products, at the least amount of expense. An enlarged and comprehensive view of our circumstances and commerce as a nation, and its internal and foreign relations, and a general, systematic, and concerted action, on the part of the agricultural interests, founded upon such information, is indispensable to their realizing all the advantages to which they are entitled. We see this intelligent and embodied effort in every other profession and craft; the clergy, acting through regular and frequent assemblies, for the more effectual promotion of their benevolent objects; the physicians, associating for the protection of their profession under law, and securing to it the highest amount of intelligence; the lawyers, in controlling legislation so as to secure to the profession the largest bill of fees; the mercantile and commercial interests, by their boards of commerce and other active and well-remunerated agents, influencing national laws and commercial regulations for their own benefit; the manufacturing and mechanical interests, by concerted movements, effecting the same objects for their own pursuits; and even the laboring classes, by the well-drilled and efficient *strikes*, not unfrequently compelling an attention to their own interests, beyond their intrinsic merits. The farmers, it is true, are well, indeed amply, protected by an impost on the objects of cultivation in this country sufficient to exclude every article they are now engaged in producing. The staple productions, grain, vegetables, beef, pork, cotton, &c., have always been fully protected, and by the late tariff the duties have been so increased on wool, hemp, silk, and some other products, to which Americans have been recently turning an increased attention, that they can now defy competition from abroad. It is not the want of higher duties on their crops, which they now require; it is a well-organized, efficient, intelligent, central board, supported by funds from the general government, which, procuring information from every portion of our wide-spread union, and from every foreign nation, with which we can have any profitable traffic, will be enabled to suggest new and profitable objects of cultivation; give additional value to such as are already receiving attention, and mature and communicate for acceptance, such modifications of adopted systems, as the constantly varying circumstances of the country require. Such a board was recommended by the illustrious Washington, in his last message to Congress, Dec. 7, 1796, and had his wise counsel been at that time adopted, and efficiently carried out to the present time, we might confidently have looked for a success and intelligence in American agriculture, far beyond anything that the world can now exhibit.

That the creation of such a board, is at any time within the power of our landed interests, is clearly manifested in the fact, that every officer of our government, legislative or executive, is either directly or indirectly elected by the popular vote, and at least two thirds of this vote is given by

those whose entire support is derived from agriculture, and one half of the remaining third is under their controlling influence, so that not less than five sixths of the popular voice can be brought to bear in favor of any measure calculated to promote this object. The neglect, hitherto, to secure the rightful interests of this great pursuit, evinces an apathy and indifference, alike discreditable to the intelligence and patriotism of the agricultural community. R.

MERINO SHEEP.

HAVING of late taken much interest in the growth of wool, and incidentally in the best breed of sheep for that purpose, I have concluded from all that I can learn of the present flockmasters of the country, the prices of wool, and the condition of our American lands for wool-growing, that the original Spanish sheep, of the importations from 1802 to 1815, are the best for the general farmer, and particularly for my own purposes. Many years since, I was interested in the sheep of some of those importations, and I well recollect their fine, substantial forms; their well-covered bodies; and the beautiful and uniform fleeces which they annually yielded. But, so far as I can understand, those animals have many years ago passed away in the drooping interest that our people have suffered in the production of valuable wools; and more than that, in the impatient, fidgety, and uneasy propensity of the American character to change and cross everything of the animal kind which they possess, and the proverbial disposition we have of not "letting well enough alone."

The upshot of all this is, that the ancient flocks of our Merinos (by ancient, I mean from 25 to 40 years ago), have been Saxonized by the numerous flocks imported in the years 1825, '6, and '7, principally on speculation. Indeed, these animals, vastly inferior, in my estimation, for the interest of the American wool-grower, to the Spanish sheep, were greedily, and without due deliberation, seized upon by our breeders to improve them. The result has been, an absolute deterioration of their flocks, in constitution, size, and weight of fleece, and as I too much fear, the *almost* extinction of the true descendants of the old Spanish sheep from our country. At all events, I have examined several flocks the past season, and among them all I seldom recognised anything that came up to the splendid old originals of the early Spanish sheep imported by Livingston and Humphrey in early days, and afterward in many select flocks, by several other distinguished sheep-fanciers and breeders of that day. There was a charter of nobility in their look; a cavalier measure in their tread; and the dignity of an old Spanish don in their presence, which outmeasured anything now seen, except occasionally, among the so-styled Merino flocks of the country. This deterioration is admitted by all with whom I have conversed, to be caused by the promiscuous breeding in of the Saxons with the Merinos. In corroboration of this sentiment, I have also the opinions of some of the largest wool merchants of the northern and eastern cities, who unequivocally declare, that the qualities of our wool have gradually been changing from the fine, close, yellow fleece of the Spanish Merino, into the texture of the less hardy, yet finer and whiter, Saxon.

I have for some months been much interested in a sort of controversy which has been carried on in your paper regarding the merits of some sheep, described as being bred in Vermont, and said by their breeders to be pure Paular Merinos. These animals also have gained much notoriety in the columns of some of our agricultural papers, where they have been figured, not at all to their credit, nor as proof, (if the pictures be correct likenesses,) in my opinion, of the purity of their blood, as either Paulars, or as pure specimens of the Spanish Merino at all. How this may be, however, I will not pretend to say. *Per contra* to this are the caustic, and, as I think, unnecessarily severe strictures of Examiner in the Agriculturist. So far as the *facts* of Examiner are concerned, my own evidence of the present condition of fine-wooled sheep in America corroborates them; but his personalities can have little bearing on the *real* argument as to the existence of, or purity of blood of our fine-wooled sheep generally.

In regard to the existence of the *Paular*, as a distinctive variety of the Spanish sheep, in the United States, I infer that they are a *fancy* breed now existing only in the imagination of their proprietors; for, so far as I have been able to ascertain, but very few of that valuable variety ever were imported into America at all; and the inveterate propensity of the "universal Yankee nation" to intermix everything of the animal kind, could hardly have left these to escape the usual fate of all things else. I also believe this from the statements of very many highly creditable individuals in different parts of the Union, who have much experience in sheep-breeding, and an intimate knowledge of the principal flocks throughout the country.

Mr. Jarvis, of Vermont, who probably imported more Spanish sheep than any other single individual in the United States, declares in his essay last winter, published in the Boston Cultivator, that his own flock, although kept separate in their varieties for a long time, were all mixed some years ago, and since then he has bred them indiscriminately. It is also asserted by those who have abundant opportunity to know from personal observation, and by wool-dealers, who have purchased his wool, that the Saxon blood has prevailed to a great extent among his flock of late years. So also of most, indeed, perhaps, every other *large* flock in the United States. Now and then, select small flocks may possibly be found, few and far between, the relics of some well-cared-for, and choice animals which have not been intermixed with Saxon or other blood. Yet it may in truth be said, if we are to believe the disinterested testimony of the great body of wool growers throughout the United States, no candid mind can rely upon obtaining pure, unalloyed Spanish sheep in any considerable numbers.

It appears to me, that the persons who have recommended their animals to public attention through the agricultural press as pure Merinos,

and the blood of which has been impeached, should, in justice to themselves, substantiate their pedigrees by unimpeachable evidence. In pursuing this course, imposition may be avoided, and the public confidence restored in such individuals as now stand by public accusation in the unenviable position of selling spurious animals under false names; and as both myself and many of my friends require thoroughbred Spanish rams for the restoration of our flocks, it is not to be doubted that such animals, if existing in the United States, will meet with ready encouragement from systematic wool-growers.

As to the Rambouillet sheep of Mr. Collins, I have seen only one or two specimens of his flock. The staple of their wool is remarkably nice, and shows all the fine, silky, softness and length of the most approved Merino of "the olden time." Yet as these are so few in number, I understand that no more of his sheep are for sale at present; my own and the applications of others being refused at any price, they do not appear likely to supply the public demand, at all events, for some time to come.

L. F. ALLEN.

Black Rock, October, 1844.

SORREL AND SOUR SOILS.

I AM obliged to Acetocella for his criticism on my article relative to sorrel, as it is probable I may be in error according to modern chemical records. When taking lectures some forty years ago, I was engaged for nearly two years in a laboratory making experiments, and among the articles tested was the juice of sorrel, in which we detected lime, and as we had to supply potash to make the binoxalate, I marked the juice in my notes as an oxalate of lime. I can not now remember whether the sorrel we used was the acetosa, or the acetocella.

Granting the juice of sorrel to be a binoxalate of potash, the adding lime to prevent its growth would be just as absurd as if it were oxalate of lime; inasmuch as lime can not displace potash from any of its acid combinations, having a much weaker affinity for acids than potash. The most probable remedy would be sulphate of lime; or if this did not answer, a very weak solution of sulphuric acid, this acid having a much stronger affinity for potash than the oxalic.

WM. PARTRIDGE.

DOGS AND CATS.

I SUFFER great loss in two kinds of stock here, which, if not of as great value as Durham cattle, are yet even more indispensably useful—I mean in *dogs and cats!* During the two years and a half that I have resided here, we have not been able to keep a single cat; they have all died in convulsions, and all in the same singular manner. They are attacked with violent shivering, seem in great agony, mewing and struggling, each fit becoming more and more violent, until they die. Can you or any of your correspondents give us the cause and remedy. *(a)* I have been told that *bleeding*, by cutting off a piece of the tail each time they have a fit, will ultimately cure them. I am now trying it, *economizing the tail* as much as possible, that it may get a fair trial. So far the kittens have recovered, when thus treated. Some other cure would be preferable, as a *bobtailed* cat is rather an unsightly object. Still, better even a bobtailed one than none.

I have also lost several valuable dogs within the past year, in somewhat the same way. Two of those I lost were *very valuable* terriers. They begin by going about as if in pain, and evidently not thriving. In a few days they commence with a sharp, keen, constantly reiterated bark, which they keep up, day and night, concealing themselves in some dark corner for a week or so, when they die. Others have dropped down, when aprently in good health, in a violent convulsive fit, having one fit after another, in rapid succession, until they die. I meet with no loss, of this kind, that grieves and annoys me so much as that of a favorite dog, and would be glad to hear of some cure or preventive.

I would say to your correspondent, S. S., that we have had our trees and shrubs almost ruined this year by myriads of a dark brown aphis, yet we have no signs of the yellows.

THOMAS AFFLECK.

Washington, Miss., Oct., 1844.

(a) We can not tell the cause of this disease, unless it be an overeating of rats or animal food, but the remedy we have generally found successful, was, to administer pretty strong doses of warm catmint tea. As a preventive, we supply our cats with all the milk they will drink and what vegetable food they will eat, such as bread, potatoes, &c. We also occasionally give them a dish of fresh fish, well cooked, of which they are extremely fond. All animals should have a variety of food when possible to obtain it.

DUTCH AND YANKEE TEAMS.

ALL can not live on canals and railroads. What then is to be done? I spent the last summer and autumn at Venice, in Ohio. The wheat was brought from 40 to 140 miles, in wagons drawn by four, and sometimes six horses. Sixty bushels was not an uncommon load, and a caravan of some ten or twenty wagons were often seen coming in together. The first thing to be attended to on their arrival at the mill was to take the horses from the wagon, unship the feeding trough, bolt it upon the tongue of the wagon, give a few pounds of hay to the horses, which would soon be devoured, then give them water, after which as much chopped feed with cut straw as would satisfy their appetite. Now a fire would be made in the open air, water boiled, coffee made, bread and a cold boiled ham be taken from the wagon, and a frugal but comfortable meal follow. No trouble in procuring either milk or sugar for the coffee. A tea-kettle, coffee-pot, and tin cup, together with a common shoe-knife to slice the bread and ham, constituted all the cooking utensils necessary for the journey. After this was accomplished, they soon turned in under the cover of the wagon, where upon the bags of wheat for a bed, or straw

if unloaded, the teamsters have a sweet night's sleep. Arrived at Venice, and the wheat unloaded and payment received for it, they take in a few bushels of ship stuff, sufficient to last to where they have left feed, at suitable distances from home, to carry them through the *entire* journey each way, so that the whole expense of the journey is the feed at the mill, and perhaps a little hay and cut straw purchased on the road.

I will now contrast this with another section of wheat-growing country, lying within a circle of 30 miles of the canal or railroad depot. The farmer puts up his 30 bushels of wheat, hitches on his two hundred dollar span of horses, takes his two dollar mounted whip, gives it a *crack*, and away he goes to the half-way house; stops, orders a bating of hay for his horses, 6 cents; 8 quarts of oats, 25 cents; dinner, 31 cents, and 6 cents to the hostler for his attention. Arriving at the mill, he takes the horses from the wagon to the tavern, orders supper, lodging, and breakfast. The whole, together with horse-keeping, &c., &c., $1 56. Perhaps he may drive home on 31 cents for horse-feed and creature comforts; say in all $2 expense out of 30 bushels wheat. I have said nothing of the difference in cost of the clothes of these two farmers; the former consisting of what they call jeans, made in the family, of cotton and wool, and costing not to exceed $4 for the dress throughout, hat, boots, and all. The latter costing $40 at least, including great coats and umbrella, and very cheap too. The one farm has cost, with all buildings complete, say $6 per acre; while the other has cost $50 per acre. The former is out of debt, and lays aside his money, or loans it on interest; the latter has hard work to pay his interest money, after meeting all family expenses. Take courage, then, my distant and inland readers, and envy not your neighbors who live, as you may erroneously suppose, in the enjoyment of superior advantages.

A BUCKEYE.

COSTLY FENCES.

THESE are all very well where fencing material abounds, and the owner can afford to build at an expense of 75 to 150 cents per rod. No single rule of building or description of fence will answer for all localities. Every farmer must consult his own convenience and interest in the matter. I think people in general have too great a *penchant* for small enclosures. These should be proportioned to the size of the farm. In stony countries, solid wall is no doubt the best; in wooden ones, the worm or Virginia fence is altogether the best and cheapest. (*a*) I have lately made a contract for some two miles of this, to be eight rails high, and double locked at each corner, for about 30 cents per rod in length. It takes up some six feet of ground in width, it is true, but in cheap land that is no object. The rails will last 20 to 50 years, and if they get infested with bushes, it is but little labor to take them up and set them a few feet distant on another line. White oak, red and white cedar, red, black, and gray oaks, chesnut, hickory, the varieties of ash, basswood, elm, &c., &c., in fact, anything that will split, makes good fence; but a block of durable wood, some six inches thick, should be laid under the ground end of each bottom rail.

PUTNAM.

(*a*) The "best and cheapest" fences are, with few exceptions, *none* at all. They are not only an eyesore in the landscape, but a perfect curse to the country, and the most unnecessary and outrageous tax on their industry that a people ever voluntarily submitted to. This language may appear strange to many of our readers, but we intend to take up this subject in our next volume, and hope to show the enormous absurdity and waste of labor in fencing in farms, especially in a country like the broad prairies of the west, which seems to have been made by Omnipotence expressly to be cultivated without them.

FINE CATTLE FOR THE SOUTH.

As the importers of fine cattle in the south often lose them by sudden death, and having had considerable experience in transporting them there, I have thought it might be useful, for me to give some hints on the subject for your paper. It is very important to the breeders of the south that they should adopt the custom of selecting young cattle instead of old ones, and they are often injured by high feeding. I would say from one to two years old were the best ages for importation. Ship in the fall not earlier than the first of October. They should have as near the same course of treatment after their arrival at the south as they had been in the habit of receiving at home. Good hay with corn and oats ground, or separate in moderate quantities, bran, or shorts mixed with cut straw and roots, if convenient. But above all, they should be sheltered from the hot sun, rains, and the night air, and have no grass until fairly acclimated; last, but not least, good water. This course of treatment should be kept up twelve months, after which both they and their progeny may be treated as the good common stock of the country is, and they will live and do well.

R. H. HENDRICKSON.

Middletown, O., Oct. 1, 1844.

HELPS IN READING AGRICULTURAL WORKS.

EVERY one knows the value of a good index, or table of contents, to an agricultural or any other work. Let me suggest another time-saving help, which shall answer the same purpose for a whole life of agricultural reading, that a good index does for a single volume. The object is to facilitate a reference to whatever is of any value in such reading. It consists simply in making an index, as you read of *subjects*. Let any farmer furnish himself with a blank book of one hundred and fifty pages, which will cost three or four shillings, (more or less). Then draw a line across each page, about an inch from the top, and another down each page, about an inch and a half from the left hand side. Then commence with the first page with the alphabet and write A in the space at the left hand, and *a* in the space at the top, in the centre of the page. On the next page write A—*e*, and on the

next A *i*, in the same manner, and when the five vowels in A are exhausted, repeat the process with B—B *a*, B *e*, then C *a*, C *e*, and so on to the end of the alphabet, which will take just the one hundred and fifty pages, and six pages to each letter; a page for each vowel. The book can be prepared in an hour easily, and when it is so ruled and lettered, it is always ready for the record.

Now for its use. When reading, and you come to any subject which you wish to examine again, any directions which you wish to recollect, make a minute of it in your blank book, as follows. Write the prominent word, or subject, in the margin at the left hand, and on that page which has the first vowel in the word; thus if it is about apples, on the page A *e*; if about cattle, on the page C *a*, and so on. At the right hand of the word state what you wish about the subject, and *where it is found*. I can not give the idea so well as to quote at random a few pages from my own book, which I think your printers can imitate with common types, spaces, dashes, &c., without any engraving, and which shows the form of the book and the manner of its use, at a glance.

A	*a*
Asparagus.	how cultivated: Am. Ag. vol. ii. p. 6, vol. iii.
"	" " p. 70. Farm. Mo. Vis. vol. iii. p.
"	125.
"	" " New Gen. Farm. vol. ii. p.
"	106, vol. iii. p. 123.

A	*e*	New page.
Apples.	good kinds: West. Farm. vol. ii. pp. 10, 175,	
"	196, 206.	
"	" " New Gen. Farm. vol. i. pp. 82,	
"	103, 180, vol. ii. pp. 51, 178.	
"	" " Am. Agricul. vol. i. p. 324,	
"	vol. iii. p. 120.	
"	value for stock: N. Gen. Farm. vol. i. p. 18.	
"	vol. v. p. 35.	
"	winter keep: Am. Agricul. vol. ii. p. 193.	
Apple	how made: New Gen. Farmer, vol. 2.	
Molasses.	p. 27.	
Ashes.	value for manure: Monthly Vis. vol. iv. pp.	
"	79, 173, 187.	
"	" " N. Gen. Farm. vol. ii. p.	
"	93, vol. iii. pp. 158, 164.	
"	" " Am. Ag. vol. i, p. 324.	

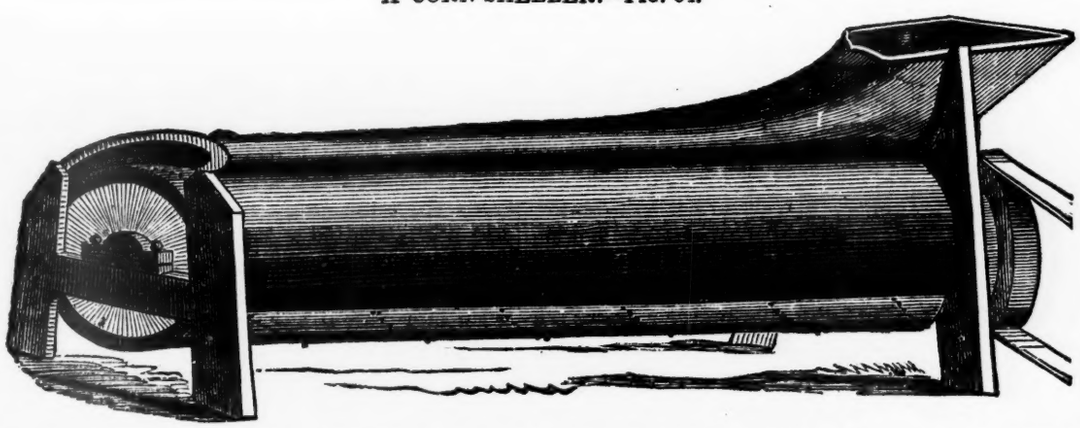
C	*e*	New page.
Charcoal.	nutritive: Am. Ag. vol. i. p. 181, vol. iii.	
"	pp. 108, 125.	
"	" N. Gen. Farm. vol. v. pp. 33, 41.	
Cattle.	diseases of: Complete Farm. pp. 66—71.	
"	" " West. Farm. vol. ii. p. 248.	
"	" " N. Gen. Farm. vol. i. pp. 68,	
"	85, vol. iii. pp. 49, 84.	
"	native, value of: N. Gen. Farm. vol. iii. pp.	
"	2, 18. Am. Ag. vol. i. p.	
"	328.	
"	short horns: Am. Ag. (too many to quote.)	
"	Devons: Am. Agricul. vol. iii. p. 10.	
"	Hereford: " " vol. ii. p. 106.	
Calves.	treatment of: Am. Ag. vol. i. pp. 84, 362.	
"	vol. iii. p. 40.	
"	" Complete Farmer, pp. 54—61.	
"	" N. Gen. Farm. vol. i. pp. 68, 85,	
"	" 99. vol. iii. p. 49.	
Cranberries.	how raised: N. Gen. Farm. vol. iii. p. 45.	
"	" " Am. Ag. vol. i. p. 28, vol. iii.	
"	pp. 54, 79.	
Carrots,	white, for cattle: Am. Ag. vol. i. p. 343.	
"	" " " N. Gen. Farm. vol. iii. p.	
"	77.	

Thus I have quoted a part of three pages, from which the plan can be seen. Thus if you want to make a minute of corn, cows, clover, cooking food, crops, &c., use page C *o*; if of flax, fallow, farm buildings, the page F *a*; if of horses, hoof ail, horn ail, hot beds, hops, horse power, &c., the page H *o*. Thus it will be seen, that you have only to turn to the page of the book where the subject is noted, and you can refer at once, and without loss of time, to any volume of any work you have read on the subject, and thus save a great deal of time in looking over the contents and through the pages of each volume. I made my book from the necessity of the case, it took so much time to look up the information I wanted. I have no doubt lost a valuable cow, from not being able at once to turn to the treatment of diseases. Now I can find any one I have read in two minutes. And so of all other subjects. Five minutes is amply supply sufficient to note down the contents of each number of any agricultural paper, and then you have the same facilities to refer to your whole agricultural reading, that you have for any single volume, when your editor sends you, at the end, a complete index. Of course it is assumed in this, that your different volumes are preserved, bound or stitched, and kept with your reference book where they can easily be taken up. Of course, also, it is supposed a farmer must have a pen and ink handy. If he has to send to the barn-yard to pull a quill from the wing of a goose, and pour some vinegar into an old ink bottle, to make something that will mark, and use his razor to make a pen, (all of which I saw recently, at the house of a large farmer, or of a man with a large farm), it may not be a time-saving operation. This caution, however, is needless without doubt; for a man who does this never takes an agricultural paper, probably, and has no need of reference, and nothing to refer to if he had. But for a man who wants to save time and money, a mere trifle of cost, and a few minutes spent *as soon as the paper or book is read*, it will be found very valuable. The more one reads, the more valuable it will be. It brings the whole under the eye at once, just as a merchant, who keeps his books well posted up, can tell in a moment how each man's account stands. But if you do not have anything ready and make the entries at once, your reading will leave you like the merchant who should have to look through his day book (keeping no ledger) to find any man's account. It would be a time-wasting, and not a time-saving operation. H.

Ohio, August 5, 1844.

The plan of the above work suggested by our correspondent, is like Todd's *Index Rerum*, which we have made use of for several years. It is ruled and bound with the alphabetical letters printed on the top of each page. We can attest to its great value as an index for general reference, and are highly obliged to our correspondent for bringing the subject before the public for the benefit of the farmer. Such an index is as valuable to him as to the student of general literature, and perhaps even more so, as he has not like him large and well-selected libraries, at hand for constant reference.

A CORN-SHELLER.—Fig. 64.



This machine, Smith's Power Corn-Sheller and Separator, consists of a horizontal toothed cylinder six feet long, and one foot two inches in diameter. The ears of corn, in the operation, are confined to a part of the upper and rising side of this cylinder, by means of a cast iron concave extending the whole length of the machine, and being shoveled or let in the machine at one end, they are driven through, and the cobs discharged at the opposite end, while the grain falls below, being admitted on either side of the cylinder. The operation is governed by elevating or depressing the discharge end, which causes the machine to discharge the cobs fast or slow, and of course operates more or less upon them; thus securing to the operator the power of finishing his work.

This machine is capable of shelling three hundred bushels of ears per hour.

F. N. Smith, *Patentee.*

New York, Oct. 1844.

TUSSAC GRASS.

The introduction of tussac grass in Great Britain has been deemed of so much interest there, as to have enlisted the efforts of some of the high officers of government for that purpose. In a recent No. of The Transactions of the Highland and Agricultural Society of Scotland, I noticed a communication to the society from Lord Stanley, secretary of state for the colonies, enclosing a letter from Governor Moody of the Falkland Islands, where the grass is produced in great perfection. I give an extract from the letter of the governor:

"I have proved to my own satisfaction, nothing can answer better than the tussac, sown and planted out in rows, the tufts of grass being about six feet from centre to centre. I am resolved to pursue this practice by having a large field laid out at Port William, in order to cut bundles through the winter to fodder horses and cattle in a stable, in the same manner as is done with the Guinea grass in the West Indies. I know that at present it may be cut twice in a year; but under proper cultivation it may be gone over much oftener. It greatly improves by cutting, and grows fast. Horses injure it by grazing, and pigs destroy it. My present experiment tends to show that it will grow on almost any soil, and that it is not necessary for it to be exposed to the spray of the sea, although a width of from 300 to 400 yards along the shore is the place of its natural growth. In some places the extent of the patches appears to be very capricious, the reason of which I can not discover, as it occurs where the soil and other circumstances appear to be uniform. This is particularly illustrated on an island of some elevation in Port Salvador. Although the tussac grass may be cut and amply remunerate the planting in the first year, it seems to take three years from the seed to arrive at perfection; but the tufts bear planting out extremely well. As to how many years the same roots may last, I can offer no information. Decayed portions of the root appear to accumulate; but in a properly attended piece of ground those would be annually removed. Under our present imperfect system, allowing the cattle to roam and graze at will, pulling out, wasting, and trampling as much as they eat, the rough, irregular patches of tussac on Long Island, amounting together to about 150 acres, keep in good fat condition for six months* 250 cattle and 70 horses. Under proper management, it is my opinion the same quantity would be found to maintain three times that number throughout the year. The grass rises high above the snow, is fresh and green all the winter, and from its height, completely shelters the horses and cattle lying among it. Perhaps the best experiment which could be made in England would be to plant tussac in one of the small islands of the Orkneys, such as Hunda, if it met with the approbation of the owner; and I conceive it would be greatly to the advantage of the landed proprietors of the Orkneys and Shetland Islands to send from among them an intelligent person to the Falkland Islands, to study the habits of the grass and to collect seed. He should arrive there early in October."

The Falkland Islands are situated between 51° and 52° south latitude, and nearly parallel with the Straits of Magellan, from which they are distant about 8° east. The climate is therefore very severe. If the tussac be so entirely adapted to that situation, analogy would lead us to expect it would be every way suited to a large extent of our northeastern coast. Their winters being the reverse of ours, it is necessary, as suggested, that one desirous of studying the habits of the grass

* The cattle are kept on Long Island only during the winter months.

should be there early in October, the commencement of their spring. The high reputation the tussac has acquired from various visiters to the above islands fully justifies the efforts now making for its introduction into the islands of Great Britain. Six pounds of the seed have been sent there at about $12 50 per lb. It is not improbable that a small quantity might be obtained there through our minister at St. James', Mr. Everett, who takes much interest in agricultural matters; or through Mr. Coleman, our intelligent agricultural representative abroad. (*a*) The object is well worthy the most thorough trial, at any reasonable cost, in our own country. Perhaps some of our enterprising Americans have noticed the tussac abroad, and already tried it at home. If so, they will confer a great benefit on our agricultural community by communicating the results in the columns of some one of the farmers' journals of this country.

What is the result of hints on the introduction and cultivation of spurry in the sandy soils of the United States? Has the experiment yet been tried, and what has been the result? Our seedsmen who are so liberally patronized by the farmers, ought to exhibit an enterprising spirit in the introduction of new varieties of seeds whose utility has been proved elsewhere.(*b*)

R. L. ALLEN.

Buffalo, Oct. 10, 1844.

(*a*)We have solicited Mr. Colman, and several other friends in England, to procure us some of this grass seed. The reply is, that it can not be had till larger supplies arrive there. If we find any vessels sailing from this port likely to touch at the Falkland islands, we shall endeavor to get some seed direct. Whale ships might obtain it.

(*b*) Mr. Thorburn imported a small quantity of spurry seed last spring, but we have not yet heard of the result of experiments with it.

LADY BARRINGTON III.

MR. VAIL has just received from the herd of Mr. Thomas Bates, of Kirkleavington, England, another fine Durham cow, called Lady Barrington 3d. She arrived at this port on the 12th ult. We much regret that we were out of town at the time, and did not see her, as she almost immediately left for her owner's residence at Troy, who, we are glad to see, is still willing to be at the expense of importing superior animals from abroad, notwithstanding the dull sales at home. However, in this particular, we expect within a year to see a great change; as the early maturity of the Durhams, and their other good qualities, are attracting marked attention.

Mr. Vail informs us, that Lady Barrington is almost entirely red, and a much larger cow than Dutchess, his first importation; uniting to great length, broad loins, and fair brisket, with well-developed udder, promising good milking qualities. Mr. Bates thus writes to Mr. Vail about her: "You will find Lady Barrington's pedigree in the second part of the 5th volume of the Herd-Book, page 514. She is by Cleveland Lad (3407), who obtained the highest premium at the show of the Royal Agricultural Society at Liverpool, in 1841, and also stood first, the same year, at the Yorkshire Agricultural show at Hull, and is now in possession of Lord Feversham, at Duncomb Park. The grandsire, Belvidere (1706), was sire and grandsire of the Duke of Northumberland (1940), and had been Lord Barrington's favorite cow tribe from 1794. I bought my first Lady Barrington in 1831, after the death of his lordship. This tribe generally breeds females, and I hope she will give you a lot of cows. She will breed well to your Wellington. The cow has had no forced keep, and as such is more likely to do well with you than if she had come out in high condition. I shall be glad to hear the account of your show in America, [meaning that of the New York State Agricultural Society,] and hope you will be successful in obtaining prizes."

Mr. Vail further remarks, that though large, Lady B. is not at all coarse. We have not a doubt she will prove a valuable addition to his already choice herd.

HENS.

CAN any of your readers inform an inquirer, how long after connexion with the cock the eggs of a hen will produce chickens?

How often is connexion with the cock necessary, to insure fecundity to a constantly laying hen?

Is one connexion sufficient to fertilise a brooding or ordinary nestful of eggs?

In the case of the hen turkey, when in heat, a single treading suffices for a brood of chicks—is it so with the common hen?

Do the Poland fowls lay more eggs than the common hen on the same keep, or is the superior merit claimed for them, limited to their neglect of sitting?

How long will a hen continue to be as good a layer as at one and two years old?

Is there any rule for determining the age of a hen?

What is the best food for poultry to produce the greatest quantity of eggs?

Can hens be too full fed to lay well, and does not full feeding always promote laying? Q.

SEEDING GRASS LANDS IN GEORGIA.

IN October, 1842, I seeded about four acres of red clover with wheat. It came up tolerably well, and stood the winter, and after the wheat was cut, presented as promising appearance as it does in the Northern States. I let it stand the first season and neither cut nor pastured it. In June last I cut the best, and made about two tons of good hay; part of the ground had been overflowed and drowned the clover. In July it headed again, about a foot high, when I turned my milch cows on it, and in three days they had increased their milk three fold, and it was of a much richer quality than previously, although running on good native pasture. I allowed the clover to be cropped very close, but expect in November it will give me another crop for my cows. On the whole, I think it a fair and satisfactory experiment, and this has placed it beyond a doubt, that red clover can be cultivated with success in this

state. The land where it was sowed is far from being rich; four years since it was a worn out old field, and has had but little manure, and that applied to previous crops of corn and turneps. When preparing the ground for wheat, on which the clover was sowed, a two-horse turning plow was used, and a scooter plow run after in the furrow, as a substitute for a subsoil plow. A heavy iron-tooth harrow and roller followed, all of which I think very necessary to success in raising good crops of small grain and grass. I expect to seed ten acres with clover this fall, on part of which I shall sow red top with the clover. W. H. S.

Sparta, Georgia, Aug. 1, 1844.

THE LOCUST TREE.

Occasionally you have recommended the cultivation of the locust on plantations, and for shade. It has been said that the locust will spread, so as to injure the tillage in the adjoining fields, and this deters many from planting it. I am told that, in New England, they are attempting its eradication for this reason, and that even this is difficult, because where a shoot is pulled up, each broken root will send up another. On account of the freedom of the tree from insects, its general beauty of appearance, and its *rapid growth*, it is very desirable to cultivate it, especially for shade (where the Algerine custom of taking off all the forest trees has prevailed), if it can be done safely. I have planted a few, which are growing so finely as to attract the attention of most passers; but have refrained from planting more, in consequence of the above suggested difficulty. Can you give your readers any certain information on this point? (*a*) I would be glad to plant many this fall, being sure they make the best shade for the farm generally, if it is safe to do so. There are none old enough in this region to settle this matter.

A Subscriber.

Ohio, August, 1844.

P. S. The spreading is said occurs in this way—the roots extend a great distance, and shoots will spring up, and these again extend roots, and throw shoots, till the lots adjoining are filled with them.

(*a*) We have never heard of the above objections to planting locusts before, though we have seen hundreds of acres of them. Will any of our readers answer as to this point? Locusts at the north have been greatly injured by the borer; but for the last few years it has nearly disappeared, and they are now flourishing finely.

Peaches not attacked by the Curculio.—In Mr. Parson's article, page 310 of our last number, he desires us to say, that peaches should not have been included among the fruits subject to be attacked by the curculio.

Fall Plowing.—If the land abound in clay, this is essentially necessary, as frost is a much better pulveriser of the soil than the harrow and roller. Besides, fall plowing exposes insects of most kinds to destruction. Sandy or light gravelly lands may be plowed in the spring.

NEW YORK STATE AGRICULTURAL SOCIETY.

ANNUAL MEETING, JANUARY, 1845.

To Agricultural Writers and Farmers generally:

The annual convention of the New York State Agricultural Society, which will continue in session for several days about the middle of January proximo, will be occupied with the examination of many subjects highly important to the agricultural community and to citizens generally. The range of investigation (in the reports from committees, in the essays prepared by various writers, and in the remarks from sundry speakers), is designed to embrace all topics of leading interest in reference to such improvements as may better enable the farming community of this state to sustain itself under the competition generated by the fertile and cheap lands of the west—such as improvement in the character and management of stock—in the introduction and promotion of new branches of farming industry—in the application of science as a profitable auxiliary in various departments of rural industry, as well as in the composition of manures and the cultivation of the soil—including, not least though last, the diffusion of agricultural and horticultural knowledge through the instrumentality of the public libraries and common school organization. Sufficient is now known from consultation with gentlemen most conversant with these matters in different sections, to warrant the undersigned in expressing a belief that the approaching annual convention will concentrate the efforts of the friends of agriculture in a manner eminently conducive to the great objects for which agricultural organization is desirable. The mornings and afternoons will be devoted to business, at the agricultural Hall, in the Old State House, at Albany; and the evenings to sociable intercourse among the members of the state and county societies, and other friends of agriculture and horticulture from all sections of the state of New York, and from several neighboring states. The hospitality of the friends of the cause in and around Albany, the undersigned also feels warranted in saying, will be manifested liberally in providing comfortable quarters for gentlemen attending the convention on this interesting occasion. The multiplicity of business and the immense crowds at the state fair and cattle shows, render it impracticable on those occasions to convene the friends of agriculture as fully as desirable for deliberation, discussion, and sociability; and it is hoped and believed that the January convention will furnish opportunities for promoting these objects, to the satisfaction of agriculturists and friends who may honor the convention with their presence from this and other states.

It may be added that the agricultural meetings, commenced satisfactorily last winter, will be continued on each Thursday evening of the approaching winter; and friends of the cause generally are invited to attend, at the society's hall.

Among the business which will employ the time of the state society at the annual meeting, will be an examination and decision on the merits of the reports and essays and books on the various

subjects embodied in the following schedule, adopted by the executive committee—John. P. Beekman, President, in the chair—several of the premiums, on important subjects (as stated when premiums were first offered months ago), being open to competition from citizens of other states as well as New York—a fact which editors are particularly requested to notice:

PREMIUMS OFFERED—

Which were not included in the list published in our May No., page 146 and following:

For the best text-book on agriculture and horticulture, for the use of schools (copyright reserved to the author), $100.

For the best essay, detailing observations made on the culture aud diseases of the potato, with special reference to the phenomena of the extraordinary visitation which has largely desolated the potato crop in the United States, and embracing suggestions for counteracting the difficulty in future cultivation of that crop—a gold medal worth $20.

For the best essay on the means of diffusing scientific knowledge in connexion with agricultural and horticultural information, through the instrumentality of the public libraries and schools, with a catalogue of books suitable for the purpose—a gold medal worth $20.

HENRY O'REILLY, *Rec. Sec.*,
Agricultural Hall, Old State House, Albany.

NORTHERN CALENDAR FOR NOVEMBER.

IT is now time to close up the operations of the warm season, and provide for the cold. Finish collecting in all your crops, corn, turneps, cabbages, &c., and see that your cellars are well secured against frost, and your granaries against depredators. Finish the fall plowing. All clay land should be thrown into ridges for the action of the frost. One good plowing on such land in the fall is worth two or three in the spring, and as the soil has a great affinity for ammonia, while thus exposed, it will absorb large quantities of it brought down in the winter and spring, by the snows and rain, which it will yield to the crops the ensuing season. Examine the winter grain and any water furrows which have become choked up, let them be opened. *Standing water will kill any useful vegetable*, excepting rice.

The yards should be well bedded with turf, peat, or muck, weeds, refuse straw, and other vegetable matters; and so constructed that the soluble parts of it, which are the best, shall not be drained off to help inundate the roads and ditches. If time permits, drains should be made to carry off the latent water, which destroys the crops, or diminishes them so much as hardly to pay for the raising. Underground, in preference to surface drains, should always be constructed, unless large quantities of water are required to pass. Give all your roots in heaps for the winter an additional covering before the ground is frozen. Have all the barns and sheds well covered and mended, and the racks and mangers all tight, and in order, that no hay or provender may be wasted. Before the ground is frozen, look well to your fences. No meadows, winter grain, or even pastures, should be exposed to poaching from cattle, sheep, or hogs. An animal will frequently do more hurt in one of them in a day at this season, than in a week while the ground is well settled in summer. In the meantime the household plants—the children—should not be neglected, and especially the older ones who have helped through the labors of the summer and harvests. Good schools must be provided for them, good teachers, and good books. Their minds now, and indeed at all times, should be as closely watched over as the more tangible things of the farm. On their correct moral and intellectual education, depends much, perhaps all their success in after life, and no fences should be neglected, or bars left down in their young minds. Good seed sown here, on good soil, and well cultivated, if the weeds of vice and bad principles are thoroughly extirpated, will never fail of producing an abundant harvest. It is not sufficient that their parents see them furnished with all the means for mental improvement; they must take an interest in their studies also. Daily examination into the progress of their children, should be the constant practice of parents; questions asked having a bearing upon them; the connexion between their studies and their own business pointed out, to show that they have a practical application to the concerns of every-day life; and they should be explained and illustrated in such a manner as to excite an interest and inquiry in their young minds. The discipline of the school ought to be inquired into, and the relative standing of the children; and when praise is due, bestow it; and where censure and even punishment are needed, they should not be withheld. No farmer would think of putting out his land to be managed by an agent without frequent and close supervision. Do not, therefore, put out the minds of your children, which are of infinitely more value, to the management of every individual, without a closer and more thorough attention than he gives to his grounds and his cattle.

Commence spreading out hemp for dew rotting, bearing in mind the observations on this subject last month.

KITCHEN GARDEN.—If not done last month, many of the early vegetables may be sown for the ensuing spring, if you have not hot beds for forcing. The beds ought to be thrown up high, so as to avoid water during winter and spring, and being soon dry when the snow is off, the young plants will take an early start. They should be well filled with the heating manure, as horse dung, &c. In these, tomatoes, lettuce, spinage, cress, &c., may be sown. The asparagus bed should have a large supply of rich manure, which the winter rains will drain of all its enriching soluble matters and carry to the lowest roots, and on the opening of spring, will be ready to furnish a fresh treat for the table. Let the lettuces in frames still be exposed to the air during the day, but be covered by the glass at night. Practise the same treatment with cabbages and cauliflowers in frames. Take up all the remaining roots and store as detailed last month. Rhubarb seed can now be sown, and will vegetate better than if kept out of the ground until spring. In the early part of this month, manure and trench the ground intended for early spring crops.

FRUIT GARDEN AND ORCHARD.—Gooseberries, currants, and raspberries, may now be transplanted. Of the latter the red and white Antwerp are considered the most desirable. Do this the early part of the month, and in the latter part lay down the raspberries, and cover them with sedge or any kind of litter. Cover the strawberries with litter or they may be killed, or at least injured, by the winter. Dig and trench or plow the ground intended for planting in the spring.

FLOWER GARDEN AND PLEASURE GROUNDS.—The directions for last month will also apply to this, while the ground is free from frost. The latter part of the month cover the flower borders and bulbous beds, and also all flowery plants and shrubs with a litter of straw or of salt hay.

FOREIGN AGRICULTURAL NEWS.

By the steamship Acadia we are in receipt of our European journals to the 4th of October.

MARKETS.—*Ashes.* Large sales in Pots and little doing in Pearls—a slight advance has taken place. *Cotton* remained without change since the departure of the Caledonia on the 19th ult., so that the depression of price during the month of September has been only ⅛d. per lb. There is a steady demand. Stock on hand at Liverpool on the 1st of October, 904,500 bales, against 814,000 same date last year. *Flour* and *Grain* still continue excessively dull. *Provisions.* Beef, Pork, and Cheese, considerable inquiry, especially of the finer kinds; Lard had advanced from 6d. to 1s. per cwt.; English Cheese is short in quantity this year, owing to the great drought. *Naval Stores* were quite active. *Tallow* and *Tobacco* the same.

Money is easy and abundant, though a good demand exists for it.

American Stocks. A slightly increased confidence is taking place in them.

Trade still continued active.

The Harvesting of grain was nearly over. The crops are good and uncommonly well secured.

Guano from Ichaboe was selling from £6 to £6 5s. per ton. When it can be had in the U. S. as reasonably our farmers will use large quantities.

Wool. About 20,000 bales of Australian was advertised in London for sale soon at auction. A large number of buyers were flocking in, and good prices for it were anticipated.

American Hay. That which has been exported to England was of timothy or herds-grass, which being much coarser than English hay, prejudiced buyers against it. They formed their opinion of the hay from its coarseness, and not from its quality for feeding. We are persuaded that for nutriment it is equal, if not superior to most English. The prices it sold at were low, and in several instances subject the shippers to a loss. We hope the English people will try the quality of our hay before they allow their prejudices to condemn it.

Sales of Durham Cattle.—These continue to bring high prices in England. Mr. Whitaker has just sold his entire herd at auction, consisting of 79 head. The highest price obtained was for Buchan Hero, 350 guineas ($1,750); the lowest, a cow, at £25. The lot averaged £51 7s. each (say $250). Mr. Yorke had a large sale averaging £35 each. Mr. Smith also had a spirited sale of Durhams. Several of the above animals were purchased for the continent. The King of the French bought the Earl of Buchan, calved July, 1843, for 200 guineas.

Twin Chickens.—It having been deemed advisable by Mr. Walters, the superintendent of her Majesty's aviary, in order to improve the breed of the genuine Dorking fowl, that it should be crossed with that of the Cochin China fowl, the necessary arrangements were made for that purpose. A Dorking hen, which had roosted for some time past with the fowls from China, has recently been in the habit of laying twice, and sometimes thrice a week, eggs containing double, or two distinct yolks. Mr. Walters, determining to try the experiment of attempting to hatch one of these double-yolked eggs, placed it, with several other eggs, under the hen. The result was that two chickens were produced from this single egg; one is a cock bird of the pure Cochin China breed, and the other is a hen chick of the Dorking species, both of which are now five days old and in good health. This is a circumstance, as we are informed, unprecedented in the annals of natural history.—*New Farmers' Journal.*

Three Hundred and Twenty Bushels of Wheat per Acre.—It has been asserted by some, and sneered at by others in this country, that 100 bushels of wheat could be easily grown upon a single acre. It will be seen that the following little experiment in England produced at the rate of 320 bushels! The imperial bushel contains 2,218·192 cubic inches; the Winchester (our common bushel), 2,150·42; the imperial bushel, therefore, is to the Winchester as 1 to ·969447. The English quarter of wheat is 8 imperial bushels of 70 lbs. each, equal to 9⅔ American bushels of 60 lbs. each.

At the end of August, 1843, I planted in my garden 32 grains of wheat, at 6 inches distance, an inch and a half deep; the seed was of the first-rate quality. This seed produced this year 32 plants, having from 10 to 28 stems and ears each; the average number of ears was 16; the average weight of each plant 1¾ ounce. An acre of land would contain, at 6 inches distance, 174,240 plants; the produce 304,940 oz., or nearly 19,600 lbs., 320 bushels, or 40 quarters per acre. The expense of dibbling would be more than saved by the diminished quantity of seed required. I do not mean to state that such a result would be obtained upon a large scale; but I think it is worthy of trial, when we know that the average produce is only 2½ quarters per acre, and that it is possible (?) to grow 40: it will be allowed that there is ample scope for improvement. Try a breadth in your fields an inch and a half deep; put 1 grain, and 1 only, in each hole—plant it at 6 or 8 inches distant—be sure to plant good seed—get as much produce as you can, but go for 40 quarters per acre.

Grafting the Chesnut on the Oak.—In the department of the Correze, an oak, engrafted eight years ago with chesnut, has produced at length chesnuts of good quality. The success of this experiment is deemed important for extensive districts where the oak flourishes and the chesnut is barren, and where the fruit is needed for food.

Mexican Pheasants.—A pair of these superb birds has recently been sent to the Queen of England. They are of immense size, being nearly as large as a turkey. Their crests are black, resembling in shape a cockatoo's, which it is expected will change to a bright yellow color, when they have attained a certain age. The feathers from their crests along their backs are perfectly black, having an extraordinary woolly appearance. Their fine full breasts are also black, beautifully spangled with white. Their legs and gills are of a rich red color. They have now become so exceedingly tame that they will feed from the hands of her Majesty and the Prince Consort.

Preserving Apples in Pits.—Apples may be kept in pits after the manner of potatoes; we have seen this practised both in France and England with success; but the fruit does not keep long after it is taken out; consequently, only a small quantity should be taken out at one time, and the pit should be instantly closed up, to prevent the admission of air. Apples kept in this manner will be found quite good and sound in the months of May and June, or even July, if they have been pitted in a careful manner, all bruised ones being rejected, which would destroy the others. A little powdered charcoal should be carefully sifted over the apples as they are laid up, which should be done in regular layers. The charcoal absorbs any moisture that is given off by the apples, and keeps all cool. After this is done, take some clean wheat straw, or hay, and lay it over the fruit, to the thickness of a foot, fastening it down with ropes made of the same material, then cover them up with earth to the depth of a foot. This covering will prevent any change in the atmosphere from reaching the apples. The operation should be performed in dry weather.—*Gardeners' Chronicle.*

Instructions for Using Guano.—In the application of this valuable manure, it is necessary to keep in view its powerful properties, and to exercise great care to prevent its coming into immediate contact with the newly sown seed or the foliage of plants and flowers. It should never be placed in contact with seeds; for all seeds in the process of germination give off a greater or less quantity of carbonic acid and vinegar; and these acids having strong affinities for the ammoniacal portion of the guano, are apt to attract it so powerfully, as to check and even destroy vegetation.

Preparation.—To secure its safe application, it has been found most effectual to mix it with about four times its own bulk of finely sifted mould, ashes, or charcoal, or even with sand, if the soil be of a cold clayey nature; and that the mixture may be complete, the guano should, *before mixing*, be carefully passed through a fine garden sieve. That portion of the guano, such as the undecomposed bones, beaks, or claws of birds, which can not be passed through the sieve, will nevertheless be found strongly impregnated with ammoniacal salts, and by steeping in water, will readily yield a rich liquid manure. An intelligent farmer in Dumfriesshire, in reference to the necessity of mixing the guano before applying it to the soil, writes as follows:—The objects of mixing guano are, 1. To partly disinfect it by absorbing its volatile products and diminishing its smell. 2. To separate its active particles, and thereby diminish their action on each other. 3. To present it to warm soils in a form in which its action will be less violent at first, but more protracted and steady than when given in an unmixed state. Of course, the colder the soil, and the earlier the season when sown, the less quantity of mixed is needed, and conversely. But as a general rule, it should be mixed as equally as possible, with four times its bulk of finely sifted, moderately dry, black or brown colored earth, or peaty matter, sawdust, slightly burnt clay, charred turf, coal or peat ashes, whichever of these substances can be most conveniently had. Perhaps newly burnt charcoal used as soon as cold, is the best matter that can be had for mixing; but as it can seldom be at the farmer's command, any of the above matters will answer in its stead.

A mixture of gypsum with guano can seldom do any hurt, and for turneps or clover on light soils, it may often be advantageous.

A very simple and economical mode of preparing guano for use, is to spread 2 cwt. of dry sifted mould, &c., three or four inches thick; lay 1 cwt. of sifted guano over it, and 2 cwt. of the mould, &c., on that again; leave the heap for two or three days protected from the weather, then let it be well mixed, and sifted through a common garden sieve. Thus prepared, it can be sown without inconvenience to the farmer, and spread without loss evenly over the field.

Guano may be also used with equal safety in a liquid state, dissolved in water, and perhaps this is the most effectual mode of developing its powers, for like all concentrated fertilizers, it requires a considerable supply of moisture, and has always exhibited the most productive results during wet seasons. For this reason it is particularly desirable that the dry mixture or compost, as we shall call it through these directions, should be used immediately before rain. But as irrigation is too tedious and costly for extensive operations, the liquid application is almost necessarily confined to the flower and kitchen garden.

Apportionment.—The quantities in which guano should be used, are necessarily regulated by the variety of crop and vegetation, also by the period of the season, the system of cropping, the state of the soil and its previous treatment; therefore the applications may with propriety vary from 2 cwt. to 8 cwt. per imperial acre, *when given alone.* When a portion of dung, bones, or other manure, has been applied, the quantity of guano must be correspondingly diminished. In apportioning the guano nothing can exceed the accuracy of weights and scales; but it may be convenient to keep in mind that one bushel of sifted guano weighs about 52 lbs. to 54 lbs. For smaller or botanical applications, one heaped pint may be reckoned equal to 1 lb. of sifted guano.

Application.—The compost may be sown, either broadcast or in drills, according to crop; but the most successful applications have been made with the use of the common machine employed for drilling the manure and seed at the same time, the operation of this machine being to deposite the guano compost so much deeper than the seed, as to allow a portion of soil to intervene. Whichever may be the mode adopted, the two primary objects of the application should be accomplished, viz., distributing the manure equally and covering it speedily.

The above is quoted from a Manual on Guano, by James Clark, published in London.

Effect of Folding Sheep on Wheat.—This experiment was tried on a field in 1843, plowed down and prepared for wheat, manuring it with 20 loads of dung, mixed with double that quantity of earth, and tilled in the following October. In March, 1844, folded Southdown sheep and lambs on it by night, to the proportion of from 800 to 1,000 sheep to the acre, changing their ground every night, and turning them into grass pasture by day. The difference between the wheat grown on the folded ground, and on the portion not folded was very manifest. Specimens of wheat affected by the foregoing modes of management were produced, fully confirming the statements made.—*New Farmers' Jour.*

Monster Mushroom.—A mushroom was gathered on Tuesday last in a field belonging to Edmund Hornby, Esq., of Dalton Hall, which measured thirty inches in circumference, and was upward of one and a half inches thick.—*Ib.*

Number of Bees and Cells in a Hive.—A bee-hive, which was opened by Swammerdam, was found to contain one queen bee, 33 males or drones, 5,635 working bees, 45 eggs, and 150 worms. Total population, 5,854; for whose accommodation there were 3,392 wax cells for the use of the working bees, 62 cells containing bees' bread, and 236 cells in which honey had been deposited: in all 3,620 cells. From this observation it may be presumed that the hives contain 5,000 to 6,000 inhabitants, among which there is only one female, viz., the queen bee, and from 3,000 to 4,000 cells.—*Ib.*

Yellow Millet.—This is the Chinese peasant's plant *par excellence.* Its grain is the basis of his nutriment. The stalk is food for his cattle, in the place of hay, which they have never thought of cutting. The straw of another species of millet, which attains a height of fifteen feet, is used to make the fences of his garden, and serves also for fuel.

Curious Hen.—There is now in the possession of Mr. Hook, boot and shoe maker, Norfolk street, a very curious hen. It is without any beak, and resembles the face of a dog. It can procure its food with the greatest facility, and we understand is complete master of its companions.

A White Swallow was taken out of a nest in Twyning church last week by a Mr. Thomas Brown, plumber, of Tewkesbury, and was kept alive for a couple of days. It has since been stuffed.

Editor's Table.

Large Quinces.—The Massachusetts Plowman acknowledges the receipt of quinces from Mr. Charles Hathaway of Grafton, twenty of which weighed 18 lbs. One weighed 18 ounces, and measured 13½ inches round. The same paper speaks of another received from Mr. John Henry of Leominster, which weighed 23 ounces!

Hemp Brake.—The Tennessee Agriculturist says one of these machines has lately been invented by C. B. Butler, which breaks 200 lbs. per hour.

Toads Destroyers of Ants.—A writer in the Cultivator asserts that toads quartered near ant hills will destroy them in a short time. We think they would do their work more rapidly if they were confined there in a box open at the top and bottom, and placed round the ant hill.

Agricultural Survey.—We notice in the Cincinnati Gazette, that Charles Whittlesey, Esq., and Mr. A. Randall, editor of the Plow-Boy, have been authorized by the Hamilton County Agricultural Society to make a survey of the farms of this county, and intend entering upon the duty forthwith. They will examine and analyze soils; take the statistics of crops and live stock; collect as far as they can the profits of agricultural labor in this county; note the peculiarities of farming implements in successful use; make drawings of the best horses, cattle, sheep, and hogs, they may meet with; and give descriptions of the most approved fruits, vegetables, and grasses. They propose, after getting through, to publish in convenient form a report of the results of their combined observations, which they place at the price of $1 per copy, and for which they solicit subscribers. This is an excellent movement. Will not the counties of the empire state imitate it?

A Big Baby.—A medical friend has just given us an account of a child, born in Franklin, a few days since, which weighed, at birth, no less than *sixteen pounds and a half*, and measured from the chin to the back of the head sixteen inches and three quarters. It is a boy, and is doing well. Children at birth, we are informed, seldom weigh more than ten or eleven pounds. This is a great country for the production of babies—they grow too at an amazing rate. Query—Is this owing to the Teche water, or the superabundance of electricity in the atmosphere? We cut the above from the Planters' Banner, and if any of our northern farmers can beat this great *agricultural product*, we shall be glad to hear from them.

Losses by the Flood on the Mississippi and its Tributaries the past Summer.—These are estimated by the Concordia Intelligencer (La.) at $6,677,000.

Agricultural Products of the U. S. for 1843.—

Wheat,	100,310,856	bushels.
Barley,	3220,721	"
Oats,	145,929,966	"
Rye,	24,280,271	"
Buckwheat,	7,959,410	"
Indian Corn,	494,618,306	"
Potatoes,	105,756,133	"
Hay,	15,419,807	tons.
Flax and Hemp,	161,007	"
Tobacco,	185,731,554	pounds.
Cotton,	747,660,090	"
Rice,	89,879,145	"
Silk Cocoons,	315,965	"
Sugar,	126,400,310	"
Wine,	139,240	gallons.

The supposed value of the above, $607,185,413. The articles of wheat, barley, buckwheat, potatoes, tobacco, rice, and sugar, amounted to less in 1843 than in 1842; though the aggregate value of all the above-named articles in 1843, was $24,545,445 greater than in 1842. The population of the United States in 1843 was 19,183,583.—*National Intelligencer.*

Pickled Cabbages.—Quarter the firm head of the cabbage; put the parts in a keg, sprinkle on them a good quantity of salt, and let them remain five or six days. To a gallon of vinegar put an ounce of mace, and one of peppercorns and cinnamon. Cloves and allspice may be added, but they darken the color of the cabbage. Heat the vinegar scalding hot, add a little alum, and turn it while hot on the cabbage, the salt remaining.—*Mass. Plowman.*

Corn Bread.—Take as much corn meal as you wish to cook, scald it well, by pouring boiling water over it and stirring it thoroughly; then mix it to the consistency of batter, with milk; if it is pretty rich it won't hurt it, but mind the mixing part, that it is thoroughly done, the more the better. Put in one egg, a teaspoonful of salæratus and a tablespoonful or more of lard. Mix the whole thoroughly together, till the ingredients are entirely incorporated through the whole; mind, I say, the mixing, the more the better. It is now to be baked as usual, about three quarters of an hour, and you will have the finest corn bread you ever ate.—*Western Farmer.*

Culture of Corn in Cane Land.—The cane, it seems, is all cut down in swaths, and laid toward the left. When a sufficient quantity of ground is thus cut over, the prostrate cane is burnt. The tough roots in the ground utterly forbid plowing, so that holes are made in the ground with a stick for the reception of the corn. The corn comes up finely, and grows well on this new ground without any plowing or other attention than simply this: a growth puts up from the roots of the cane, which is called mutton cane. This it is necessary to destroy, and it is done by the hands walking over the field with a stick in hand and knocking the young muttons down wherever they appear. They easily snap off like pipe-stems. It is a common thing, in these hills, we understand, to raise fine crops of corn without any plowing.—*South Western Farmer.*

Ripe Fruit and Dysentery.—There is a pernicious prejudice with which people are too generally imbued—that fruits are injurious in the dysentery—that they produce and increase it. There is not, perhaps, a more false prejudice. Bad fruit, and that which is imperfectly ripened, may occasion colics, and sometimes diarrhœa, but *never* epidemic dysentery. Ripe fruits of all kinds, especially in the summer, are the true preservatives against this malady. The greatest injury that they can do, is in dissolving the humors, and particularly the bile, of which they are the true solvents, and occasion a diarrhœa. But even this diarrhœa is a protection against the dysentery. Whenever the dysentery has prevailed, I have eaten less animal food and more fruit, and have never had the slightest attack. I have seen eleven patients in one house; nine were obedient to the direction given, and ate fruit—they recovered. The grandmother, and a child she was most partial to, died. She prescribed for the child burnt *brandy* and oil, powerful aromatics, and forbade the use of fruit. She followed the same course herself, and met the like fate. A minister attacked with dysentery ate three pounds of red currants between 7 o'clock in the morning and 9 in the evening—next day he was entirely cured.—*Tissot.*

Profit of Growing Mustard Seed.—We have recently purchased from J. H. Parmlee of Ohio, a part of his crop of brown mustard seed, raised, as he informed

us, on 27 acres of good rich land, prepared with as much care as is usually bestowed upon good land. The seed, he says, was planted in rows one foot apart one way, and two feet the other. The crop was well worked during the season, and when near ripe was cut with sickles, laid on sheets or wagon covers, hauled to the barn in the sheets, and there threshed out and fanned.

He has delivered to us a part of the product of 27 acres of land, 114 barrels, containing 382 bushels of 45 lbs. of brown mustard seed, weighing 52½ lbs. per bushel, making 20,100 lbs., for which we paid him 8 cts. per lb., making - - - - - $1608 00

And he has, he says, 100 bushels of tailings, which he estimates will clean up 75 bushels, say 50 lbs. per bushel, making 3,750 lbs., at 8 cts., - - - - - - 300 00

Product of 27 acres of brown mustard seed, $1908 00
or $70 66 per acre.—*Farmers' Cabinet.*

Nursery of Mr. Samuel Reeve, Salem, New Jersey.—We have received the Saturday Post, containing a description of a great variety of apples, &c., &c., in this old established and excellent nursery.

Extraordinary Yield of Squashes.—Mr. Benjamin Weld, of Roxbury, informs us that from one vine of the Valparaiso squash, he gathered 11 squashes, weighing as follows, viz: 84 lbs., 73, 69, 62, 59, 58, 44, 27, 22, 20, 10—making a total of 528 lbs., which he sold for $5 on the ground.—*New England Farmer.*

Monster Vines.—Mr. Seaver Pray, of South Weymouth, informs us that Mr. Joseph B. Smith, of that town, had a squash vine this year, measuring 263 feet 5 inches in length. The same vine bore 3 squashes, weighing 77¼ lbs. He also had potato tops on the same piece of ground, that measured 8 feet and 1 inch in length. These were raised on meadow land, where he plowed in gravel.—*Ib.*

Great Yield of Pumpkins.—Chas. L. Pierce, gardener to Dr. B. F. Haywood, in this town, raised the present year, from a single seed, 15 pumpkins, weighing 384 lbs. The largest weighed 31½ lbs., and the average of the whole was 25½ lbs. each. The vine, including all the branches, measured 635 feet in length. —*Worcester Spy.*

Disease in Potatoes.—Mr. Teschemacher, in the New England Farmer, attributes this disease to a species of fungus on the tubers. He recommends a liberal supply of salt to be spread on the land planted next year in potatoes, where the disease appeared this season, as a remedy for it. Others attribute the disease to an insect. The Westfield Newsletter says:—"From some of the infected potatoes may be seen the insect in its pupa state escaping. In others you may, upon boiling, find the rudiments of the insect in embryo, while in others nothing will be found, the insect having escaped. As to the health of the potato, it is like all other defective fruits, but no worse, and when sound as healthy as at any previous year. The insect feeds upon the leaves and stems, when full grown retires to the roots of potatoes, and there deposites its eggs, which soon hatch; in a few days they retire from the potato to the ground, where it completes its final transformation."

From the limited observations we have had an opportunity of making, we must confess that we think the disease in potatoes comes from a variety of causes, each of which seem to produce nearly the same effect.

Poultry.—Error Corrected.—Mr. Bement writes us that we were in error, in our account of the late show of the State Society, in giving credit to him for an exhibition of poultry, the said fowls belonging to some one else, we believe Mr. D. B. Fuller, of Hyde Park, who also had some very choice birds in the magnificent car which he in part commanded on that occasion. Our mistake occurred from seeing Mr. Bement's name written on the pen containing the poultry spoken of. He regrets now that he did not exhibit, quoting jokingly the old saying of having "a much finer animal at home," &c. Now, as to this last observation, he must allow us to add, we shall *believe* it when we see it at the next State Society show. This having much "finer fowls at home," is, in our opinion, a good deal like the man who boasted of leaping 50 feet at a single step; but when called upon to do the same here, replied, oh, that was *at home* in the East Indies where he performed the feat, and he must have Asiatic ground to do it on again! Good.

Pickle for Hams.—To 1,000 lbs. of hams take three pecks of salt, three pounds of saltpetre, two quarts of hickory ashes, two quarts of molasses, and two teacups of red pepper; mix all well together on a salting table; rub the rind or skin of the ham well, and sprinkle with the balance; let it lie from five to six weeks, then hang up and smoke with green hickory wood for five or six weeks; a little sawdust also, if convenient. The red pepper prevents the skipper, I think. If the hogs are very large, I think more salt would be required. I generally put the large hams at the bottom of the tub.—*Ellsworth's Report.*

A Monster Cabbage.—Mr. Ethan Burroughs of Ferrisburgh, presented us last week with a perfect monstrosity in the shape of a cabbage. When placed upon its face it covered a surface of 13 feet in circumference—measured around the solid head 6 feet, and weighed 33 pounds. If any one has got a match to this, let him produce it.—*Vergennes Vermonter.*

Splendid Flowers.—Mr. Hovey, editor of the Magazine of Horticulture, is now making a tour in England, and in his notices of flowers, &c., abroad, thus speaks:

"Of all the objects which have as yet attracted our attention, none have compared with the display of the *Lilium lancifolium*, in the collection of Mr. Groom, of Clapham. We have on several occasions noticed these lilies, and at least three of them have been described in our pages, from the journals where they have been figured, and each of these have flowered in the collections in our vicinity; not, however, in anything like the splendor in which they are to be seen around London at this moment. What an expedition was that of Siebold to Japan! If the question were to be asked us, what we consider the greatest acquisition within the last twenty years, we should say, the Japan lilies. Indeed, we would almost say, that nothing but the Camellia, during the last century, has been greater. But the lilies were not all; the camellias, the clematises, *Sedum Sieboldii*, and many other things, will long perpetuate the name of Dr. Siebold, and render it familiar to all lovers of plants.

"There are now *four* varieties, called by Mr. Groom as follows:—*L. lancifolium album, punctatum, roseum, rubrum*; the latter, perhaps, better known as the *L. speciosum*. They may be classed, in regard to their beauty, the reverse of the above, viz., *rubrum* the most, and *album* the least, splendid; but each of them of surpassing beauty: *album* and *punctutatum* are the most common, and *roseum* the rarest, having been recently received from Ghent. Good strong flowering bulbs of each command very high prices."

To CORRESPONDENTS.—Experimenter will find by looking over the price current of this month that his wishes are complied with. The extract from Johnstone shall appear in our next, if we can find room. M. W. P., Pigeon-Houses, and everything else asked for, will appear in next volume.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, OCTOBER 23, 1844.

ASHES, Pots,	per 100 lbs.	$4 12	to	$4 19
Pearls,	do.	4 25	"	4 31
BACON SIDES, Smoked,	per lb.	3½	"	4½
In pickle	do.	3	"	4
BALE ROPE	do.	6	"	9
BARK, Quercitron	per ton	24 00	"	25 00
BARLEY	per bush.	66	"	69
BEANS, White	do.	1 25	"	1 75
BEEF, Mess	per bbl.	5 00	"	7 00
Prime	do.	3 00	"	5 00
Smoked	per lb.	5	"	7
Rounds, in pickle	do.	3	"	5
BEESWAX, Am. Yellow	do.	28	"	31
BOLT ROPE	do.	12	"	13
BRISTLES, American	do.	25	"	65
BUTTER, Table	do.	15	"	18
Shipping	do.	8	"	12
CANDLES, Mould, Tallow	do.	9	"	12
Sperm	do.	28	"	38
Stearic	do.	20	"	25
CHEESE	do.	3	"	7
CLOVER SEED	per lb.	7	"	8
COAL, Anthracite	2000 lbs.	4 50	"	5 75
CORDAGE, American	per lb.	11	"	12
CORN, Northern	per bush.	50	"	53
Southern	do.	49	"	52
COTTON	per lb.	5	"	9
COTTON BAGGING, Amer. hemp per yard.		16	"	18
American Flax	do.	16	"	17
FEATHERS	per lb.	30	"	35
FLAX, American	do.	8	"	8½
FLAX SEED, rough	per 7 bush.	9 00	"	9 75
clean	do.	10 00	"	10 50
FLOUR, Northern and Western	per bbl.	4 50	"	4 88
Fancy	do.	5 00	"	5 38
Southern	per bbl.	4 50	"	4 88
Richmond City Mills	do.	5 50	"	5 75
Rye	do.	3 25	"	3 50
HAMS, Smoked	per lb.	5	"	10
Pickled	do.	4	"	7
HAY	per 100 lbs.	40	"	45
HIDES, Dry Southern	per lb.	9	"	11
HEMP, Russia, clean	per ton.	172 00	"	175 00
American, water-rotted	do.	125 00	"	170 00
do dew-rotted	do.	75 00	"	125 00
HOPS	per lb.	10	"	12
HORNS	per 100	1 25	"	5 00
LARD	per lb.	5½	"	6½
LEAD	do.	3½	"	4
Sheet and bar	do.	4	"	4½
MEAL, Corn	per bbl.	2 44	"	2 75
Corn	per hhd.	12 25	"	12 50
MOLASSES, New Orleans	per gal.	27	"	30
MUSTARD, American	per lb.	16	"	31
OATS, Northern	per bush.	32	"	33
Southern	do.	29	"	31
OIL, Linseed, American	per gal.	70	"	72
Castor	do.	80	"	85
Lard	do.	55	"	65
OIL CAKE	per 100 lbs.	1 00	"	— —
PEAS, Field.	per bush.	1 25	"	— —
PITCH	per bbl.	1 00	"	1 12
PLASTER OF PARIS	per ton.	2 50	"	2 62
Ground, in bbls. of 350 lbs	per cwt.	1 12	"	— —
PORK, Mess	per bbl.	8 25	"	10 00
Prime	do.	6 50	"	8 12
RICE	per 100 lbs.	2 62	"	3 12
ROSIN	per bbl.	58	"	75
RYE	per bush.	71	"	72
SALT	per sack	1 30	"	1 40
Common,	per bushel	27	"	30
SHOULDERS, Smoked	per lb.	4	"	6
Pickled	do	3	"	4
SODA, Ash, cont'g 80 per cent. soda, per lb.		3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SPIRITS TURPENTINE, Southern per gal.		35	"	38
SUGAR, New Orleans	per lb.	5	"	8
SUMAC, American	per ton	25 00	"	27 50
TALLOW	per lb.	6	"	7½
TAR	per bbl.	1 75	"	1 87
TIMOTHY SEED	per 7 bush.	11 00	"	13 00
TOBACCO	per lb.	2½	"	6½
TURPENTINE	per bbl.	2 25	"	2 75
WHEAT, Western	per bush.	95	"	1 05
Southern	do.	95	"	1 00
WHISKEY, American	per gal.	26	"	27½
WOOL, Saxony	per lb.	45	"	65
Merino	do.	40	"	50
Half-blood	do.	35	"	40
Common	do.	25	"	30

New York Cattle Market—Oct. 21.

At market, 1350 Beef Cattle (200 from the south), 40 Cows and Calves, and 2500 Sheep and Lambs.

PRICES.—*Beef Cattle*—In brisk demand at $4.25 *a* 4.75, to $5.25 *a* 5.50 for retailing qualities—unsold 200.

Cows—The same as last week, $15 *a* 25—all sold.

Sheep and Lambs.—We quote the former $1.12 *a* 4.00, as in quality, and the latter 87½ *a* $2.50—left over 250.

REMARKS.—*Ashes* remain unchanged by the late news. *Cotton* the same. Export from the United States since 1st September last, 93,728 bales; same time last year, 11,320; same time year before, 37,593. *Flour*—The great quantity afloat has had a tendency to depress the market. *Grain*—Wheat, Rye, and Corn, steady; Barley quite scarce; Oats plenty and dull. *Hay* in good demand for shipping. *Hemp* little inquiry. *Molasses* very firm. *Naval Stores* rather heavy. *Provisions* of all kinds, with the exception of Beef, quite brisk. *Sugar* in fair demand. *Tobacco* quiet. *Wool* the same. By reference to the Price Current of November last, it will be seen that agricultural products on the average are quite as high now, if not higher, than at that period, so that all croakers about falling prices are completely at fault.

Money without change—plenty in the city at 4 to 6 per cent., in the country hard to be got.

Stocks have fluctuated somewhat the past month, having been influenced by the alternate hopes and fears of each political party in the coming Presidential election.

Business generally pretty good, though not equal to that of last year at this time.

The Weather. During September there were the greatest extremes we ever experienced, it being excessively hot for the first 23 days, and then snow falling on the mountains at the north 9 inches deep. October has been rather a wet month, with disastrous storms, especially at the west. On the lakes we have accounts of the most fearful gale within the memory of man, and very destructive of life and property. The latter part of the month has been sunny and warm. The crops are now all pretty well secured, and much more than an average, take them all in all, for which we ought to be grateful to a kind and superintending Providence.

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JOEL RATHBONE.

Albany, Sept. 26, 1844. 3t

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Troy, 19th Oct., 1844.

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